Ashraf Yaseen

Associate Professor of Data Science **Updated**: *October 1, 2025*

Center for Big Data in Health Sciences | Department of Biostatistics and Data Science
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Citizenship and/or Visa Information: United States Citizen

A. BACKGROUND

A1. EDUCATION

PhD., Computer Science **Old Dominion University** (**ODU**), Norfolk, VA **Dec, 2014**

- Field of Specialization: Bioinformatics, Deep Learning, High Performance Computing
- Dissertation: *Improving Structural Features Prediction in Protein Structure Modeling using Deep Learning*
  Advisor: Dr. Yaohang Li

M.S., Computer Science **New York Institute of Technology** (**NYIT**) **Aug, 2003**

- With Distinction
- Field of Specialization: High Performance Computing
- Research project: *Multithreaded Heuristic Search* - Multithreaded programming techniques to enhance the performance of heuristic searching algorithms

B.S., Computer Science & Information Systems **Jordan University of Science and Technology** (**JUST**) **Jul, 2002**

- On the Honors List of the School of Information Technology
- Field of Specialization: Database Applications, High Performance Computing
- Project: *E-Auto Insurance System* – A database application using Oracle
- Research: *Distributed Heuristic Search* – multi-process programming on distributed systems for searching algorithms

A2. PROFESSIONAL EXPERIENCE

University of Texas - Health Science Center (UTHealth) – Houston, Texas
Center for Big Data in Health Sciences | Department of Biostatistics and Data Science, School of Public Health

Associate Professor of Data Science (Tenured) **2023- present**
Assistant Professor of Data Science **2018-2023**

- Co-developer and Faculty Coordinator of the Data Science Program and Certificates
- Manager of the Data Science Software Development Team
- Research in Data Analysis, Data Management, Machine Learning, Big Data, and High-Performance Computing
- Develop and teach courses in Data Science and Machine Learning
- Advise students (academic and research thesis advisor)
- Collaborate with researchers in academia and industry
- Develop curricula, serve on departmental, school, and university committees, and perform scholarly and service activities

Texas A&M University Kingsville (TAMUK) – Kingsville, Texas
Department of Electrical Engineering and Computer Science, College of Engineering

Director of the Computational Sciences Lab **2016-2018**
Assistant Professor of Computer Science **2014-2018**

- Develop and teach courses: Introduction to Bioinformatics, Bioinformatics Computing, Database Systems, Cloud Computing, Operating Systems, Computer Communication Networks
- Research in Bioinformatics, Machine Learning, Security Engineering, High Performance Computing
- Advise students (graduate research project and thesis advisor)
- CS Undergraduate ABET Assistant Director
- Develop curricula, serve on departmental, college, and university committees, and perform scholarly and service activities

Central State University (CSU) – Wilberforce, Ohio
Department of Mathematics and Computer Science, College of Engineering, Science and Technology

Assistant Professor of Computer Science **2013-2014**

- Teach courses: Computer Programming in C++, Database Systems, Contemporary Operating Systems, Computer Networks, Computer Architecture
- Advice students, develop curricula, serve on departmental, college, and university committees, and perform scholarly and service activities

Old Dominion University (ODU) - Norfolk, Virginia
Department of Computer Science, College of Sciences

Research Assistant **2010-2013**

- Exploring machine learning methods in Protein modeling
- Using GPUs in Bioinformatics

Teaching Assistant and **Lab Instructor** for Problem Solving and Programming **2007-2010**

Jordan University of Science & Technology (JUST) - Irbid, Jordan
Department of Computer Information Systems, College of Computer and Information Technology

Lecturer of Computer Information Systems **2003-2007**

- Teach courses: Knowledge-based Systems, Database Applications using Oracle, Programming in C++, Programming in Visual Basic
- Senior project advisor
- Advice students, develop curricula, serve on departmental, college, and university committees, and perform scholarly and service activities

Teaching Assistant: Introduction to Computer Science **2002-2003**

Al-Najjar Center - Irbid, Jordan

Database Developer using Oracle. (Part-time) **2001-2002**

Creative Systems - Irbid, Jordan

Computer Programmer using Visual Basic (Part-time) **2000-2001**

A3. AWARDS

- ❖ Professional Development Award. Center for Teaching Effectiveness, New Faculty Investment Program, TAMUK, 2016.
- ❖ Summer Research Award. Office of Research and Sponsored Programs, TAMUK, 2016.

B. RESEARCH

B1. RESEARCH INTERESTS

- **Data Management, Data Analysis, Machine Learning, and Big Data**
- **Bioinformatics**
- **High Performance Computing**

B2. PUBLICATIONS

first/co-first author: **†**
corresponding/co-corresponding or senior author: **§**
students I have advised or mentored: **✖**

1. Sarah Hinds, Claudia Robertson, Jingxiao Chen, **Ashraf Yaseen**, Ramon Diaz-Arrastia, Nancy R Temkin, Jovany Cruz Navarro, Stacia M DeSantis, Jose-Miguel Yamal. High-frequency physiological measures predict post-admission surgical intervention after severe traumatic brain injury. *Journal of Neurotrauma*. (accepted) 10/2025
2. ✖Zitong Zhang, **§Ashraf Yaseen**, Hulin Wu. Statistical Interpretation of Word Embedding in Natural Language Processing. *International Journal of Data Science and Analytics*. (accepted) 8/2025
3. Kehe Zhang, Jocelyn V Hunyadi, Marcia C de Oliveira Otto, Miryoung Lee, Zitong Zhang, Ryan Ramphul, Jose-Miguel Yamal, **Ashraf Yaseen**, Alanna C Morrison, Shreela Sharma, Mohammad Hossein Rahbar, Xu Zhang, Stephen Linder, Dritana Marko, Rachel White Roy, Deborah Banerjee, Esmeralda Guajardo, Michelle Crum, Belinda Reininger, Maria E Fernandez, Cici Bauer. Increasing COVID-19 Testing and Vaccination Uptake in the Take Care Texas Community-Based Randomized Trial: Adaptive Geospatial Analysis. *Journal of Medical Internet Research* (JMIR) Form Res 2025;9:e62802. doi: 10.2196/62802
4. ✖Zitong Zhang, **§Ashraf Yaseen**, Hulin Wu. Scholarly recommendation system for NIH funded grants based on biomedical word embedding models. *Natural Language Processing Journal*. August 2024. https://doi.org/10.1016/j.nlp.2024.100095
5. Sarah Messiah, Rhiana Abbas, Emma Bergqvist, Harold W Kohl, Michael D Swartz, Yashar Talebi, Rachit Sabharwal, Haoting Han, Melissa A Valerio-Shewmaker, Stacia M Desantis, **Ashraf Yaseen**, Henal A Gandhi, Ximena Flandes Amavisca, Jessica Ross, Lindsay N Padilla, Michael O Gonzalez, Leqing Wu, Mark A Silberman, David Lakey, Jennifer A Shuford, Stephen Pont and Eric Boerwinkle. Factors Associated with Elevated SARS-CoV-2 Immune Response in Children and Adolescents. *Frontiers in Pediatrics*. 14 August 2024. Volume 12 - 2024 | https://doi.org/10.3389/fped.2024.1393321
6. **†Ashraf Yaseen**, Stacia M. DeSantis, Rachit Sabharwal, Yashar Talebi, Michael D. Swartz, Shiming Zhang, Luis Leon Novelo, Cesar L Pinzon-Gomez, Sarah E. Messiah, Melissa Valerio-Shewmaker, Harold W. Kohl, Jessica Ross, David Lakey, Jennifer A. Shuford, Stephen J. Pont and Eric Boerwinkle. Baseline characteristics of SARS-CoV-2 vaccine non-responders in a large population-based sample. *PLoS One*. 2024 May 13;19(5):e0303420. doi: 10.1371/journal.pone.0303420. PMID: 38739625; PMCID: PMC11090326.
7. Sarah E. Messiah, Yashar Talebi, Michael D. Swartz, Rachit Sabharwal, Haoting Han, Emma Bergqvist, Harold W. Kohl III, Melissa Valerio-Shewmaker, Stacia M. DeSantis, **Ashraf Yaseen**, Steven H. Kelder, Jessica Ross, Lindsay N. Padilla, Michael O. Gonzalez, Leqing Wu, David Lakey, Jennifer A. Shuford, Stephen J. Pont & Eric Boerwinkle. "Long-term immune response to SARS-CoV-2 infection and vaccination in children and adolescents" *Pediatric Research* 96, 525–534 (2024). https://doi.org/10.1038/s41390-023-02857-y
8. **†Ashraf Yaseen**, Claudia Robertson, Jovany Cruz Navarro, Jingxiao Chen, Brian Heckler, Stacia DeSantis, Nancy Temkin, Jason Barber, Brandon Foreman, Ramon Diaz-Arrastia, Randall Chesnut, Geoff Manley, David Wright, Mary Vassar, Adam Ferguson, Amy Markowitz, Jose-Miguel Yamal. Integrating, Harmonizing, and Curating Studies with High-Frequency and Hourly Physiological Data: Proof of Concept from Seven Traumatic Brain Injury Datasets. *Journal of Neurotrauma*. 2023 Aug 16. doi: 10.1089/neu.2023.0023. PMID: 37341031.

9. ⁎Zitong Zhang, ⁎Rachit Sabharwal, Miryoung Lee, Kehe Zhang, Paul McGaha, Michelle Crum, Cici Bauer, Susan P. Fisher-Hoch, Joseph B. McCormick, Belinda M Reininger, Samantha Thomas, Esmeralda Guajardo, Daniel Pinon, **§Ashraf Yaseen**. An Interactive Online Dashboard with Covid-19 Trends and Data Analysis in Northeast and South Texas. *The Texas Public Health Journal (TPHJ)*. Volume 76 Issue 2. 2023.
10. ⁎Zitong Zhang, **§Ashraf Yaseen**. A Content-Based Dataset Recommendation System for Biomedical Datasets. *2023 6th International Conference on Information and Computer Technologies (ICICT)*, Raleigh, NC, USA, 2023 pp. 198-202. doi: 10.1109/ICICT58900.2023.00040
11. ⁎Jie Zhu, **§Ashraf Yaseen**, Luis Leon-Novelo. Incorporating uncertainty quantification for actionable insights and performance improvement of academic recommenders. *Knowledge* 2023, 3, 293-306. https://doi.org/10.3390/knowledge3030020
12. ⁎Zitong Zhang, Braja Gopal Patra, **§Ashraf Yaseen**, ⁎Jie Zhu, ⁎Rachit Sabharwal, Kirk Roberts, Tru Cao, and Hulin Wu. Scholarly Recommendation Systems: A Literature Survey. *Knowledge and Information Systems* (2023), https://doi.org/10.1007/s10115-023-01901-x
13. Stacia DeSantis, **†Ashraf Yaseen**, Tianyao Hao, Luis León-Novelo, Yashar Talebi, Melissa Valerio-Shewmaker, Cesar Pinzon Gomez, Sarah Messiah, Harold Koh, Steven Kelder, Jessica Ross, Lindsay Padilla, Mark Silberman, Samantha Tuzo, David Lakey, Jennifer Shuford, Stephen Pont, Eric Boerwinkle, Michael Swartz. Incidence and predictors of breakthrough and severe breakthrough infections of SARSCoV-2 after primary series vaccination in adults: A population-based survey of 90,000 participants. *Journal of Infectious Diseases*. 2023 May 12;227(10):1164-1172. doi: 10.1093/infdis/jiad020. PMID: 36729177
14. Stacia M DeSantis, **†Ashraf Yaseen**, Tianyao Hao, Luis León-Novelo, Yashar Talebi, Melissa A Valerio-Shewmaker, Cesar L Pinzon Gomez, Sarah E Messiah, Harold W Kohl, Steven H Kelder, Jessica A Ross, Lindsay N Padilla, Mark Silberman, Samantha Wylie, David Lakey, Jennifer A Shuford, Stephen J Pont, Eric Boerwinkle, Michael D Swartz. RE: Incidence of SARS-CoV-2 Breakthrough Infections After Vaccination in Adults: A Population-Based Survey Through 1 March 2023, *Open Forum Infectious Diseases*, Volume 10, Issue 12, December 2023, ofad564, https://doi.org/10.1093/ofid/ofad564
15. ⁎Jie Zhu, Braja Patra, Hulin Wu, §**Ashraf Yaseen**. A novel NIH research grant recommender using BERT. *PLoS One*. 2023 Jan 17;18(1):e0278636. doi: 10.1371/journal.pone.0278636
16. Messiah, Sarah E., Michael D. Swartz, Rhiana A. Abbas, Yashar Talebi, Harold W. Kohl, III, Melissa Valerio-Shewmaker, Stacia M. DeSantis, **Ashraf Yaseen**, Steven H. Kelder, Jessica A. Ross, and et al. "SARS-CoV-2 Serostatus and COVID-19 Illness Characteristics by Variant Time Period in Non-Hospitalized Children and Adolescents" *Children* 10, no. 5: 818. 2023. https://doi.org/10.3390/children10050818
17. ⁎Jie Zhu, §**Ashraf Yaseen.** A Recommender for Research Collaborators Using Graph Neural Networks. *Frontiers in Artificial Intelligence*. 2022 Aug 1;5:881704. doi: 10.3389/frai.2022.881704. PMID: 35978654; PMCID: PMC9376356.
18. ⁎Jie Zhu, Hulin Wu, §**Ashraf Yaseen**. Sensitivity Analysis of a BERT-based scholarly recommendation system, *FLAIRS Conference Proceedings*, 35. 2022. https://doi.org/10.32473/flairs.v35i.130595.
19. Stacia DeSantis, Luis Leon-Novelo, Michael Swartz, **Ashraf Yaseen**, Melissa Valerio, Yashar Talebi, Frances Brito, Jessica Ross, Harold Kohl III, Sarah Messiah, Steve Kelder, Leqing Wu, Shiming Zhang, Kimberly Aguillard, Michael Gonzalez, Onyinye Omega-Njemnob, David Lakey, Jennifer Shuford, Stephen Pont, Eric Boerwinkle. Methodology to estimate natural- and vaccine-induced antibodies to SARS-CoV-2 in a large geographic region. *PLOS ONE*, 2022 Sep 9. PMID: 36084125 PMCID: PMC9462720 DOI: 10.1371/journal.pone.0273694
20. Sarah Messiah, Tianyao Hao, Stacia DeSantis, Michael Swartz, Yashar Talebi, Harold Kohl, Shiming Zhang, Melissa Valerio-Shewmaker, **Ashraf Yaseen**, Steven Kelder, Jessica Ross, Michael Gonzalez, Leqing Wu, Lindsay Padilla, Kourtney Lopez, David Lakey, Jennifer Shuford, Stephen Pont, Eric Boerwinkle. Comparison of Persistent Symptoms Following SARS-CoV-2 Infection by Antibody Status in Nonhospitalized Children and Adolescents. *The Pediatric Infectious Disease Journal*. 2022;INF.0000000000003653. doi:10.1097/INF.0000000000003653

21. Michael Swartz, Stacia DeSantis, **Ashraf Yaseen**, Frances Brito, Melissa Valerio-Shewmaker , Sarah E Messiah, Luis G Leon-Novelo, Harold Kohl, Cesar Pinzon-Gomez, Tianyao Hao, Shiming Zhang, Yashar Talebi, Joy Yoo, Jessica Ross, Michael O Gonzalez, Leqing Wu, Steven H Kelder, Mark Silberman, Samantha Tuzo, Stephen J Pont, Jennifer Shuford, David Lakey, Eric Boerwinkle. Antibody duration after infection from SARS-CoV-2 in the Texas Coronavirus Antibody Response Survey. [published online ahead of print, 2022 May 6]. *Journal of Infectious Diseases*. 2022;jiac167. doi:10.1093/infdis/jiac167
22. Sarah Messiah, Stacia DeSantis, Luis Leon-Novelo, Yashar Talebi, Frances Brito, Harold Kohl, Melissa Valerio-Shewmaker, Jessica Ross, Michael Swartz, **Ashraf Yaseen**, Steven Kelder, Shiming Zhang, Onyinye Omega-Njemnobi, Michael Gonzalez, Leqing Wu, Eric Boerwinkle, David Lakey, Jennifer Shuford, Stephen Pont; Durability of SARS-CoV-2 Antibodies From Natural Infection in Children and Adolescents. *Pediatrics* June 2022; 149 (6): e2021055505. 10.1542/peds.2021-055505
23. Nan Deng, Canglin Wu, **Ashraf Yaseen**, Hulin Wu. ImmuneData: an integrated data discovery system for immunology data repositories. *Database* (Oxford). 2022 Mar 9;2022:baac003. doi: 10.1093/database/baac003. PMID: 35262674; PMCID: PMC9216516.
24. Melissa Valerio-Shewmaker, Stacia DeSantis, Michael Swartz, **Ashraf Yaseen**, Michael Gonzalez, Harold Kohl, Steven Kelder, Sarah Messiah, Kimberly Aguillard, Camille Breaux, Leqing Wu, Jennifer Shuford, Stephen Pont, David Lakey, Eric Boerwinkle. Strategies to Estimate Prevalence of SARS-CoV-2 Antibodies in a Texas Vulnerable Population: Results From Phase I of the Texas Coronavirus Antibody Response Survey. *Frontiers in Public Health*. 2021 Dec 14;9:753487. doi: 10.3389/fpubh.2021.753487. PMID: 34970525; PMCID: PMC8712464.
25. Sarah Messiah, Melissa Valerio-Shewmaker, Stacia DeSantis, Michael Swartz, **Ashraf Yaseen,** Frances Brito, Harold Kohl, Steven Kelder, Kimberly Aguillard, Onyinye Omega-Njemnobi, Camille Breaux, Jessica Ross, Michael Gonzalez, Shiming Zhang, Leqing Wu, David Lakey, Jennifer Shuford, Stephen Pont, Eric Boerwinkle. Estimated Prevalence of SARS-CoV-2 Antibodies in the Texas Pediatric Population, 2021. The Lancet, available at *SSRN*: https://ssrn.com/abstract=3868061 or http://dx.doi.org/10.2139/ssrn.3868061
26. Cong Zhu, Radhe Mohan, Steven Hsesheng Lin, Goo Jun, **Ashraf Yaseen**, Xiaoqian Jiang, Han Chen, Qianxia Wang, Wenhua Cao, Brian Hobbs. Identifying Individualized Risk Profiles for Radiotherapy-Induced Lymphopenia Among Patients With Esophageal Cancer Using Machine Learning. *JCO Clinical Cancer Informatics*. 2021 Sep;5:1044-1053. doi: 10.1200/CCI.21.00098. PMID: 34665662; PMCID: PMC8812653.
27. ✖Jie Zhu, Braja Patra, Hulin Wu, §**Ashraf Yaseen**. Recommender system of scholarly papers using public datasets, *AMIA* Jt Summits Transl Sci Proc. 2021 May 17;2021:672-679. PMID: 34457183; PMCID: PMC8378599.
28. Braja Patra, Babak Soltanalizadeh, Nan Deng, Leqing Wu, Vahed Maroufy, Wenjin Jim Zheng, Kirk Roberts, Hulin Wu, §**Ashraf Yaseen**. An Informatics Research Platform to Make Public Gene Expression Time-Course Datasets Reusable for More Scientific Discoveries. *Database*, Volume 2020, 2020, PMID: 33247935 PMCID: PMC7698665 DOI: 10.1093/database/baaa074.
29. Derek W. Brown, Stacia M. DeSantis, Thomas J. Greene, Vahed Maroufi, **Ashraf Yaseen**, Hulin Wu, George Williams, Michael D. Swartz. A Novel Approach for Propensity Score Matching and Stratification in the Presence of Multiple Treatments: Application to an EHR-Derived Study of Subarachnoid Hemorrhage. *Statistics in Medicine*. 39: 2308– 2323. 2020. doi: 10.1002/sim.8540. Epub 2020 Apr 16. PMID: 32297677; PMCID: PMC7334100.
30. George Williams, Vahed Maroufy, Laila Rasmy, Derek Brown, Duo Yu, Hai Zhu, Yashar Talebi, Xueying Wang, Emy Thomas, Gen Zhu, **Ashraf Yaseen**, Hongyu Miao, Luis Leon Novelo, Degui Zhi, Stacia DeSantis, Hongjian Zhu, Jose-Miguel Yamal, David Aguilar, and Hulin Wu. Vasopressor Treatment and Mortality Following Non-Traumatic Subarachnoid Hemorrhage: A Nationwide EHR Analysis. *Neurosurgical Focus*. 2020. doi: 10.3171/2020.2.FOCUS191002. PMID: 32357322
31. Vahed Maroufy, Pankil Shah, Arvand Asghari, Nan Deng, Rosemarie Le, Juan Camilo Ramírez, **Ashraf Yaseen**, W. Zheng, Michihisa Umetani, Hulin Wu. Gene expression dynamic analysis reveals co-activation of

Sonic Hedgehog and epidermal growth factor followed by dynamic silencing. *Oncotarget*. 11. 10.18632/oncotarget.27547. 2020.

32. †**Ashraf Yaseen**, Hao Ji, and Yaohang Li, "A Load-Balancing Workload Distribution Scheme for Three-Body Interaction Computation on Graphics Processing Units (GPU)". *Journal of Parallel and Distributed Computing*, 87: 91–101, 2016. https://doi.org/10.1016/j.jpdc.2015.10.003
33. †**Ashraf Yaseen**, Mais Nijim, Brandon Williams, Lei Qian, Min Li, Jianxin Wang, and Yaohang Li "FLEXc: protein flexibility prediction using context-based statistics, predicted structural features, and sequence information". *BMC Bioinformatics*, vol. 17 Suppl 8, pp. 281, 2016. doi: 10.1186/s12859-016-1117-3. PMCID: PMC5009531PMID: 27587065
34. Mais Nijim and **Ashraf Yaseen**, "HuBum: Energy Efficient Hybrid Mobile Storage Systems using Solid States and Buffer Disks". Journal of Computer Communication and Collaboration, 2015. (DOIC: 2292-1036-2015-04-001-59)
35. †**Ashraf Yaseen** and Yaohang Li, "Context-based Features Enhance Protein Secondary Structure Prediction Accuracy". *Journal of Chemical Information and Modeling*, 54 (3), pp 992–1002, 2014. doi: 10.1021/ci400647u. Epub 2014 Mar 12. PMID: 24571803.
36. †**Ashraf Yaseen** and Yaohang Li, "Template-based C8-SCORPION: a protein 8-state secondary structure prediction method using structural information and context-based features", *BMC Bioinformatics*,15(Suppl 8):S3, 2014. doi: 10.1186/1471-2105-15-S8-S3 | PMCID: PMC4120151PMID: 25080939
37. Zhiqiang Wu, Bin Wang, Chi-Hao Cheng, Dr. Deng Cao, and **Ashraf Yaseen**. "Software Defined Radio Laboratory Platform for Enhancing Undergraduate Communication and Networking Curricula," 2014 *ASEE Conference*, 2014.
38. †**Ashraf Yaseen** and Yaohang Li, "Dinosolve: A Protein Disulfide Bonding Prediction Server using Context-based Features to Enhance Prediction Accuracy", *BMC Bioinformatics*, 14(Suppl 13):S9, 2013. doi: 10.1186/1471-2105-14-S13-S9. Epub 2013 Oct 1. PMID: 24267383; PMCID: PMC3849605
39. Yaohang Li and **Ashraf Yaseen**, "Pareto-based Optimal Sampling Method and Its Applications in Protein Structural Conformation Sampling". *AAAI Workshop on Artificial Intelligence and Robotics Methods in Computational Biology*, Bellevue, 2013.
40. †**Ashraf Yaseen** and Yaohang Li "Predicting Protein Solvent Accessibility with Sequence, Evolutionary Information and Context-based Features". *Biotechnology and Bioinformatics Symposium*, (BIOT2013) Provo, 2013.
41. †**Ashraf Yaseen** and Yaohang Li "Template-based Prediction of Protein 8-states Secondary Structures".3rd *IEEE International Conference on Computational Advances in Bio and Medical Sciences* (ICCABS2013), New Orleans 2013.
42. †**Ashraf Yaseen** and Yaohang Li "Enhancing Protein Disulfide Bonding Prediction Accuracy with Context-based Features", *Proceedings of Biotechnology and Bioinformatics Symposium*, (BIOT2012), Provo, 2012.
43. †**Ashraf Yaseen** and Yaohang Li, "Accelerating Knowledge-based Energy Evaluation in Protein Structure Modeling with Graphics Processing Units," *Journal of Parallel and Distributed Computing*, 72(2): 297-307, 2012. https://doi.org/10.1016/j.jpdc.2011.10.005
44. Weihang Zhu, **Ashraf Yaseen** and Yaohang Li "DEMCMC-GPU: An Efficient Multi-Objective Optimization Method with GPU Acceleration on the Fermi Architecture" *New Generation Computing*, 29(2): 163-184, 2011.
45. †**Ashraf Yaseen**, Kurt J. Maly, Steven J. Zeil and Mohammad Zubair "Performance Evaluation of Oracle Semantic Technologies with respect to User Defined Rules". *Proceeding of Database and Expert Systems Applications*, DEXA, International Workshops, Toulouse, France, August 29, 2011.

Books

46. Hulin Wu, Jose-Miguel Yamal, **Ashraf Yaseen**, and Vahed Maroufy. Statistics and Machine Learning Methods for EHR Data, From Data Extraction to Data Analytics. United States: CRC Press, 2020.

Citation Data: Scopus and Google Scholar

B3. FUNDING/GRANTS

1. Novartis Pharmaceuticals Corporation — 2025-2026

Multiple Sclerosis Implementation Network

Develop the Multiple Sclerosis Implementation Network (MSIN), a practice-based research network and learning collaborative of Multiple Sclerosis (MS) researchers and clinicians. Aim to advance MS research and care across the United States.

Total: **$750,000**. Co-Investigator (PI: Fernandez/Yamal). Avg %effort: 25%

2. National Institute of Health (NIH)/National Heart Lung and Blood Institute (NHLBI) — 2024-2027

Trauma Resuscitation with Group O Whole Blood or Products (TROOP)

A pragmatic, multicenter, phase III randomized clinical trial to evaluate the clinical effectiveness and safety of whole blood, compared with component blood therapy in trauma patients predicted to require large volume blood transfusions.

Total: **$1,905,212**. Co-Investigator (PI: DeSantis). Avg %effort: 10%

3. U.S Army Medical Research Acquisition Activity (USAMRAA) — 2025-2027

BioTROOP Study: A multiomic bioanalysis of Trauma Resuscitation with Group O Whole Blood or Products (TROOP)

A companion study to perform multiomic bioanalyses of the TROOP trial ("bioTROOP") that will leverage the trial's existing infrastructure and collect blood samples from enrolled subjects in the minutes, hours and days following injury.

Total: **$342,585**. Co-Investigator (PI: DeSantis). Avg %effort: 8%

4. Texas Department of State Health Services (TDSHS) / Centers for Disease Control & Prevention (CDC) — 2021-2024

Texas SARS-CoV-2 Variant Sequencing Study

Expand genomic sequencing of the virus that causes COVID-19. Sequence and study more COVID-19 samples from around the state to provide a better picture of circulating and emerging variants of the COVID-19 virus.

Total: **$14,124,185**. Co-Investigator (PI: Boerwinkle). Avg %effort: 2021-2022: 15%, 2022-2024: 10%

5. Texas Department of State Health Services (TDSHS) — 2020-2025

Texas Coronavirus Antibody Response Surveillance

The main objective is to understand person, place, time, disparities and trends of COVID-19 to inform public health action and policy.

Total: **$12,250,878**. Co-Investigator (PI: Boerwinkle). Avg effort: 2020-2021: 25%, 2021-present: 30%

6. Office of the National Coordinator for Health Information Technology - U.S. Health Resources and Services Administration (HRSA) - US Department of Health and Human Services (DHHS) — 2021-2025

The PHIT Workforce Development Program: Creating a diverse and inclusive health information technology (IT) workforce in Texas

Total: **$9,213,935**. Co-Investigator (PI: Boerwinkle). Avg %effort: 10%

7. US Department of Defense (DOD) 2020-2024

Leveraging FITBIR Data to Improve Clinical Practice of Severe Traumatic Brain Injury (TBI)
Aims of this study: 1. Integrate and harmonize data from various multi-center TBI studies 2. Curate data from various multi-center TBI studies 3. To assess the association between the ways ICP is treated and long-term neurological outcomes
Total**: $748,708.** Co-Investigator (PI: Yamal). Avg %effort: 2020-2022: 15%, 2022-2024: 10%

8. National Institute of Health (NIH) - Center for Advancing Translational Sciences 2021-2023

RADx-UP Phase II (COVID)
This study will leverage longstanding academic-community engaged partnership to examine SARS-CoV-2 infection patterns and identify dynamic disease hotspots and testing deserts in racially diverse neighborhoods of three Texas regions (Houston/Harris County, South Texas and Northeast Texas) and evaluate the rapid adaptation and deployment of multilevel intervention strategies to SARS-CoV-2 testing in vulnerable populations.
Total: **$3,204,351**. Co-Investigator (PI: Fernandez). Avg %effort: 2%

9. U.S. Health Resources and Services Administration (HRSA) - US Department of Health and Human Services (DHHS) 2021-2023

Community-Based Workforce Development and Mobilization to Increase COVID-19 Vaccination Equity in Texas.
The goal is to increase COVID-19 vaccinations through the development and mobilization of existing community-based health and outreach workforces in the state of Texas.
Total: **$11,623,660**. Co-Investigator (PI: Fernandez). Avg %effort: 8%

10. Texas Department of State Health Service (TDSHS) 2022-2022

COVID-19 Vaccine Hesitancy and Confidence (COVAHC) Survey: A Rapid Community Assessment in Texas.
Total: **$614,079**. Co-Investigator (PI: Cuccaro & Yamal). Avg %effort: 15%

11. National Institute of Health (NIH) - Center for Clinical and Translational Sciences 2020-2022

RADx-UP Phase I (COVID)
This study leverages longstanding academic-community engaged partnership to examine SARS-CoV-2 infection patterns and identify dynamic disease hotspots and testing deserts in racially diverse neighborhoods of three Texas regions (Houston/Harris County, South Texas and Northeast Texas) and evaluates the rapid adaptation and deployment of multilevel intervention strategies to SARS-CoV-2 testing in vulnerable populations.
Total: **$4,998,788**. Co-Investigator (PI: Fernandez). Avg %effort: 3%

12. Centers for Medicare and Medicaid Services (CMS) – US Department of Health and Human Services (DHHS) 2020-2022

Assistance, Addressing Social Needs of High-Risk Patients through Screening and Navigation to Community Social Service Organizations (Track 2)
The UTHealth School of Public Health team proposes to address the social needs in the ACH model, Assistance. In partnership with our UT Physicians, Memorial Hermann Hospital and Texas Children's Hospital, we seek to apply an innovative asynchronous platform for screening and navigation of patients.
Total: **$2,559,327**. Co-Investigator (PI: Highfield). Avg %effort: 15%

13. Harris County 2020-2021

SARS-CoV-2 Surveillance Testing Program for Harris County
The main objective is to enhance COVID-19 testing and understand the epidemiology and dynamics of COVID-19 in our Harris County and the city of Houston.
Total: **$16,985,172**. Co-Investigator (PI: Boerwinkle). Avg %effort: 20%

14. National Heart, Lung, & Blood Institute (NHLBI) - National Institute of Health (NIH) / Clinical Pathology Labs (CPL) 2020-2021

Rapid Expansion of Existing Framework for Deploying Large-Scale COVID-19 RT-PCR Testing Platforms and Distributing Capacities. RADx Tech NIH Grant Sub.
Total: **$206,930**. Co-Investigator (PI: Melissa Valario). Avg %effort: 25%

15. National Institute of Health (NIH) - NIDCR 2019-2022

CATCH Healthy Smiles: A cluster-RCT of an elementary school oral health intervention
This grant will allow us to plan for, and test the efficacy of an elementary school-based oral health intervention using a cluster-randomized controlled trial design across children from ethnically-diverse, low-income families in Houston, Texas.
Total: **$4,096,889**. Co-Investigator (PI: Sharma). Avg %effort: 7%

16. Office of Research and Sponsored Programs, Texas A&M University-Kingsville 2016-2018

Computational Sciences Lab
A project to establish a High-Performance Computing Multidisciplinary Research lab. Provides computing services, facilitates multidisciplinary research through collaboration, and trains faculty members and member students
Total: **$93,872**. (PI: Ashraf Yaseen)

17. Office of Research and Sponsored Programs, Texas A&M University-Kingsville 2016-2017

Development of **Javelinas-Server for Predicting Protein Structural Features**.
Total: **$3,000** (PI: Ashraf Yaseen)

18. US Department of Homeland Security (DHS) 2015-2018

Security Engineering: Development of Curriculum and Research for Homeland Security
Security Engineering is a multidisciplinary minor program within the College of Engineering at TAMUK offered in support of preparing engineering and science students for careers in areas related to our nation's security.
Total: **$698,000**. Co-Investigator (PI: Selahattin Ozcelik). Avg %effort: 15%

19. National Science Foundation (NSF)-TUES 2013-2014

Collaborative: TUES: Software Defined Radio Laboratory Platform for Enhancing Undergraduate Communication and Networking Curricula
Evolvable wireless laboratory design and implementation for enhancing undergraduate wireless engineering education in which the team developed and demonstrated lower cost, software defined radio (SDR) based laboratories for undergraduate courses.
Total: **$100,000**. Role: Co-investigator.

C. TEACHING

C1. CLASSES

- At University of Texas Health Science Center:

Course	Semester (teaching score/5)
- **Fundamentals of Data Analytics and Predictions** Course co-developer and instructor	Spring 2019 (4.13), 2020 (4.32), 2021 (4.46), 2022 (4.30), 2023 (4.51), 2024 (4.55), 2025 (4.33)
- **Machine Learning in Practice** Course developer and lead instructor	Fall 2018 (4.07), 2019 (4.62), 2020 (4.38), 2021 (4.60), 2022 (4.42), 2023 (4.64), 2024 (4.20)
- **Data Science Computing** Course developer and lead instructor	Spring 2020 (4.18)
- **Introduction to Statistical and Data Science Programming (Python & R)** Course developer and lead instructor	Fall 2020 (4.38)

- At Texas A&M University Kingsville:

- **Introduction to Bioinformatics** Course developer and lead instructor	Summer 2016 (4.30)
- **Bioinformatics Computing** Course developer and lead instructor	Summer 2015 (4.25, 4.27), 2016 (4.36, 4.31)
- **Cloud Computing** Course developer and lead instructor	Summer 2017
- **Database Systems** Lead instructor	Spring 2015 (4.35, 4.22), 2016 (4.35), 2017 (4.44)
- **Operating Systems** Lead instructor	Fall 2014 (4.27, 4.22), 2015 (4.42, 4.37), 2016 (4.5), 2017 (4.41)
- **Computer Communication Networks** Lead instructor	Fall 2014 (4.27)

- At Central State University:

Computer Programming in C++, **Contemporary Operating Systems**, **Database Systems, Computer Networks, Computer Architecture**

- At Old Dominion University:

Problem Solving and Programming I, **Problem Solving and Programming II**

- At Jordan University of Science & Technology:

Introduction to Computer Science, **Programming in C++**, **Programming in C++ (for non-CS major)**, **Programming in Visual Basic (for non-CS major)**, **Database Applications using Oracle**, **Knowledge-based Systems**

C2. ADVISING

○ **Thesis/Dissertation Supervisor – PhD (**Data Science**)** at **UTHealth**	Graduation/ Or Expected Date
1. Jie (Ginny) Zhu PhD. Biostatistics and Data Science, M.S. Environmental Engineering *Virtual Research Assistant (VRA): a platform for recommending datasets, grant announcements, and collaborators for population health professionals*	Summer 2022
2. Zitong Zhang PhD. Biostatistics and Data Science, M.S. Computer Science *(Biomedical) Data Sets and Research Grants Recommendation Systems: Methods and Statistical Evaluation*	Fall 2024
3. Rachit Sabharwal PhD. Biostatistics and Data Science, M.S. Biostatistics and Data Science *Certainty/Uncertainty of Deep Learning Predictions in Population Health Applications*	Spring 2025
4. Tzuruei Chao PhD. Biostatistics and Data Science, M.S. Biostatistics and Data Science *Deep Learning-Based Prediction of Adolescent High-Risk Trajectories in HIV-Related Behaviors Using Longitudinal Data.*	Spring 2026

○ **Thesis/Dissertation Supervisor – MS (**Data Science**)** at **UTHealth**	
1. Mengchen Ding *Applications of statistical methods studying the impact of mobilization regimes on the total collection yield of hematologic stem cells*	Fall 2020
2. Nitesh Enduru *Association of genetic risk, midlife simple 7, and incident stroke: the atherosclerosis risk in communities (ARIC) study*	Summer 2021
3. Christin Silos *Predicting Length of Stay for Ischemic Stroke Patients using Machine Learning Methods*	Spring 2021
4. Rachit Sabharwal *BIOREC: A biomedical recommendation system for academic conferences and journals*	Spring 2022
5. Joy Yoo *Predicting the antibody test results for Covid-19 using Machine Learning Methods*	Spring 2022
6. Shefali A. Patel *Predicting mortality and 30-day readmission using machine learning methods for MIMIC-IV patients with chronic obstructive pulmonary disorder*	Spring 2023
7. Youssef Benfallah *Estimation of Obesity Levels Based on Eating Habits, Lifestyle factors and Physical Condition*	Fall 2024
8. Mira Baltaji *ADHD Predictions in Adults and Associations with Bipolar Disorder using Machine Learning Methods*	Spring 2025

○ **Academic Advisor/Committee Chair – PhD (**Biostatistics and Data Science**)** at **UTHealth**	
1. Yajie Liu *Bayesian Tensor Models for Neuroimaging: Applications in Alzheimer's Disease and Brain Tumor Prediction*	Spring 2025
2. Yuanliang Yang *Innovative Adaptive Clinical Trial Designs for Addressing Potential Patient Heterogeneity*	Fall 2025
3. Fuchenchu Wang	Fall 2026

Leveraging Surrogate-Historical Linkage to Improve Clinical Endpoint Estimation in Rare Disease Trials

4. Kyung Serk Cho — Summer 2026
   Machine Learning Frameworks for Resolving Cellular Niches in Spatial Transcriptomics
5. Qidi Xu — Fall 2026
   Large language models (LLMs) in quantitative analysis
6. Chen, Yu Bin — Fall 2026
   Deep learning modeling method for drug response prediction using multi-omic datasets
7. Yida Wang — Spring 2027
   Deep Learning Based Causal Inference for outcome association with treatment--target-trial emulation using EHR data
8. Xiaoyang Li — Spring 2027
   A Hybrid Framework for Dynamic Prediction: Combining Joint Models with Survival Random Forest in Landmark Models for Longitudinal Biomarker Data
9. Oladipo K Afolayan — Fall 2027
10. Abdulrahman Mubarak — Fall 2027
11. Ehsan Fayyazishishavan — Fall 2027

- **Academic Advisor/Committee Chair – MS (**Biostatistics and Data Science**)** at **UTHealth**

1. Brandon O'Grady — Fall 2020
   Survival analysis of colorectal cancer patients with liver metastasis
2. Anna Blozinski — Spring 2020
   Quantitative Data from Pink Warrior analysis using appropriate statistical methods
3. Yu Bin Chen — Fall 2023
   Recommendation system on GEO dataset
4. Syeda B. Hussain — Spring 2026

- **Member of the Thesis/Dissertation Committees – PhD** at **UTHealth**

1. Cong Zhu (Biostatistics & Data Science) — Spring 2020
   A machine learning based framework for studying the risk of radiotherapy induced lymphopenia and its association with survival among esophageal cancer patients
2. Liang Wu (Biostatistics & Data Science) — Spring 2021
   Developing Machine Learning Algorithms for Time-Course Healthcare Data
3. Xueying Wang (Biostatistics & Data Science) — Summer 2022
   Bias-Corrected Machine Learning Methods for Risk Predictions Using EHR Data with Censoring: Applications to Heart Failure Predictions Among Diabetes Patients
4. Jeffrey Lin (Biostatistics & Data Science) — Spring 2022
   Machine Learning for the Joint Analysis of Multivariate Longitudinal and Survival data
5. Yi Yao (Biostatistics & Data Science) — Spring 2023
   Statistical Methods for Dynamic Prediction of Disease Progression in Longitudinal Cohort Studies of Chronic Kidney Disease
6. Feng Zhang (Biostatistics & Data Science) — Fall 2023
   Methods for estimation of the predictive effect of the biomarker from summarized data under a variety of dose-response relationships and their applications
7. Katherine Wall (Biostatistics & Data Science) — Fall 2023
   Multimodal Deep Learning for sMRI Classification
8. Xinyang Jiang (Biostatistics & Data Science) — Spring 2024

Addressing Subject Heterogeneity in Time-dependent Discrimination for Biomarker Evaluation

9. Shelby Simar (Epidemiology, Human Genetics & Environmental Sciences) — Summer 2024
   The Bugs They Are A'Changin': The Persistence and Resistance of Enterococci
10. Can Li (Biostatistics & Data Science) — Spring 2025
    Enhancing equity in healthcare: a multifaceted approach to bias mitigation in clinical research and predictive modeling using statistical and machine learning methods
11. Jeffrey Oliver (Behavioral Sciences and Health Promotion) — Fall 2025
    An investigation of homelessness and housing insecurity in the indigent mental health population of Texas
12. Qian Wang (Biostatistics & Data Science) — Spring 2026
    Enhancing Recurrent Event Risk Prediction Using Boosting and Transfer Learning
13. Nitesh Enduru (Epidemiology)
    Transcriptome-wide association (TWAS) analysis to identify proteins related to resilience to Alzheimer's disease across multiQTLs (eQTL, pQTL) and multi tissues (Brain, Blood).
14. Christopher Alonzo (Epidemiology) — Fall 2026
    Respiratory Disease Forecasting
15. Yunyi Wang (Biostatistics & Data Science) — Spring 2026
    Transfer Learning in Survival Analysis using intermediate events and disease causes from clinical trials

- **Member of the Thesis/Dissertation Committees – MS** at **UTHealth**

1. Lakshmi Kanikkannan (Biostatistics & Data Science) — Summer 2025
   Analyzing the correlation between the average macronutrient consumption of numerous countries and their COVID-19 cases, hospitalization rates, and deaths
2. Kimenpreen Kaur (Biostatistics & Data Science) — Summer 2023
   Predicting long COVID outcomes in diabetic patients
3. Stanley Ta (Biostatistics & Data Science) — Spring 2023
   Deep Learning for Time-Series Modeling in Predicting Traumatic Brain Injury Outcome
4. Priya Reddy (Biostatistics & Data Science) — Spring 2024
   Prevalence of depression, anxiety and post-traumatic stress disorder in women with long-COVID: A systematic review and meta-analysis
5. Jingfan Hu (Biostatistics & Data Science) — Summer 2025
   Application of Competing Risk Analysis and Multi-State Modeling in a Study of Pediatric Acute Liver Failure

- **Thesis/Dissertation Supervisor – M.S.** (Computer Science) at **TAMUK**

1. Megha Lalluvadia — Spring 2017
   Applications of Text Classification
2. Jatin Waghela — Spring 2017
   A study of web application development stacks and demonstration of MEAN stack
3. Praveenraj Uthamarajan — Spring 2017
   Analysis of Systems using Distributed Consensus Algorithms
4. Gaurav Dokania — Fall 2015
   Predicting Protein Disorder

- **Project Supervisor – M.S.** (Computer Science) at **TAMUK**

1.	Rakshith Padmanabha *Sentimental Mining of Social Media Data for the Detection of Malicious Behaviors and Activities of Individuals*	Fall 2016
2.	Rajan Pawar *Performance Analysis of NoSQL Databases and Relational Databases*	Fall 2016
3.	Pushpak Gandhi *Developing Web based Java Applications*	Fall 2016
4.	Dhara Shah *Syntax and Semantic based Approach for Automatic Question Generation*	Fall 2016
5.	Anjali Shinde *Selenium Automation Testing Tool*	Fall 2016
6.	Rushikesh Jawali *Aroundme (mobile application)*	Fall 2016
7.	Suvobrata Dutta *A Web Service Recommendation System*	Fall 2016
8.	Sakalkar Saurabh *A Simple Recommendation System*	Fall 2016
9.	Aamani Mayakuntla *Finger Print Compression based on Sparse Representation*	Fall 2016
10.	Sai Srinivas Maddipati *Hospital Management System (HMS)*	Fall 2016
11.	Sandeep Reddy Takkolu *A Soft-computing based Stock Market Recommender System*	Fall 2016
12.	Hridya Gopalakrishna *Timesheet Manager*	Spring 2016
13.	Harish Pyneni *Mobile Application Development*	Spring 2015
14.	Anil kumar Burra *Mobile Application (Buddy Ride)*	Spring 2015
15.	Alvin Ahmed Prasla *TAMUK Job Portal*	Spring 2015
16.	Praveen Kumar Kollipara *Student Profile Management System*	Spring 2015
17.	Anurag Gupta *Machine Learning Methods for Predicting Protein Solvent Accessibility*	Spring 2015
18.	Varun Agrawal *Machine Learning Methods for Predicting Protein Disorder*	Spring 2015
19.	Mayur Prakash Kaware *'The Movie App' in android*	Spring 2015

D. Invited Talks, Presentations, and Posters

D.1 TALKS

1. Lack of antibody response in those vaccinated or with natural exposure. [Session: Examining SARS-CoV2 Response Over Time Using a Longitudinal Design: Texas CARES Survey]. American Public Health Association (APHA). November 7, 2022. Boston, MA.
2. Texas CARES Community Update, Lessons Learned and Next Steps. Healthier Texas Summit. October 21, 2022. Austin TX.
3. Epidemiology Special Session: Understanding the Human Antibody Response to Sars-Cov-2 in Diverse Populations: The Texas Coronavirus Antibody Response Survey (CARES). Data Management and Visualization. American Public Health Association (APHA). October 25, 2021, Denver, Colorado.
4. Understanding the Human Antibody Response to SARS-CoV-2 in Diverse Populations: The Texas Coronavirus Antibody Response Survey (CARES). World Health Organization (WHO) Solidarity II. August 27, 2021.
5. Texas C.A.R.E.S. Coronavirus Antibody REsponse Survey. Texas CARES Portal: An Interactive Platform with Visualizations, Maps, and Summary Statistics to Illustrate and Understand the Human Response to COVID-19. Texas Department of State Health Services (DSHS) Grand Rounds. June 16, 2021.

D2. PRESENTATIONS AT NATIONAL OR INTERNATIONAL CONFERENCES

1. International Conference on Big Data and Information Analytics. Houston, Texas. December 17-19, 2018.
   - Presentation: Collaborative Platform for GEO Big Data Project: An innovative platform with Scalable Analytic Tools to Efficiently Promote Use/Reuse of Time Course Gene Expression Data for Scientific Discoveries. Session: Big Data at UTHealth: Use of the Public Genetic Database, GEO, for Big Data Research.
2. Applied Statistics Symposium. Houston, Texas. December 13-16, 2020.
   - Short course: Statistics and Machine Learning Methods for EHR Data: From Data Extraction to Data Analytics/Predictions. Full-day. Hulin Wu, Ashraf Yaseen and Vahed Mafoury.
   - Poster: Recommender system of scholarly papers using public datasets. Jie Zhu, Braja Patra, Hulin Wu and Ashraf Yaseen.
   - Presentation: Big Data to answer Big Questions: Experience with Anuerysmal SAH. Session: Statistical and Machine Learning models on EHR and Insurance Claim databases. Vahed Mafoury, Ashraf Yaseen and George Williams.
3. International Symposium on Bioinformatics Research and Applications. Norfolk, Virginia. June 7-10, 2015
4. AAAI Workshop on Artificial Intelligence and Robotics Methods in Computational Biology. Bellevue, Washington. July 14-18, 2013
5. BIOT: Biotechnology and Bioinformatics Symposium Provo, Utah. December 5-6, 2013
6. IEEE International Conference on Computational Advances in Bio and Medical Sciences. New Orleans, Louisiana. June 12-14, 2013
7. Annual Tidewater Student Research at Christopher Newport University. Newport, Virginia. November, 2012
8. BIOT: Biotechnology and Bioinformatics Symposium Provo, Utah. October 25-26, 2012

D3. POSTERS

1. ✖Jie Zhu, Braja Patra, Hulin Wu and Ashraf Yaseen. Recommender system of scholarly papers using public datasets. ICSA Applied Statistics Symposium. Houston, Texas. December 13-16, 2020.

2. ✖Praveenraj Uthamarajan and Ashraf Yaseen, “Analysis of Systems using Distributed Consensus Algorithms”. College of Engineering-TAMUK, 2017.
3. ✖Megha Lalluvadia and Ashraf Yaseen, "Applications of Text Classification". College of Engineering-TAMUK, 2017.
4. ✖Varun Agrawal, ✖Gaurav Dokania, and Ashraf Yaseen, “Predicting protein flexibility and disorder”. Texas A&M University System 12th Annual Pathways Student Research Symposium, Corpus Christi, TX, 2015.
5. ✖Anurag Gupta, ✖Hridya Gopalakrishna, and Ashraf Yaseen, “Predicting protein solvent accessibility”. Texas A&M University System 12th Annual Pathways Student Research Symposium, Corpus Christi, TX, 2015.
6. †Ashraf Yaseen, Mais Nijim, ✖Brandon Williams, Lei Qian, and Yaohang Li “Predicting Protein Flexibility using Context-based Statistics, Predicted Structural Features, and Sequence Information”. 11th International Symposium on Bioinformatics Research and Applications (ISBRA), Norfolk, Virginia, 2015. (Awarded #1 best poster).
7. †Ashraf Yaseen, ✖Akeem Edwards and Yaohang Li, “Improving Intermediate Steps in ab initio Protein Molding”,14th Annual Tidewater Student Research Poster Session at Christopher Newport University. Nov, 2012.

E. SERVICE

E1. PROFESSIONAL GROWTH & SERVICE ACTIVITIES

➢ Lead Administrative Roles

- **Program Coordinator** and **co-Developer** of UTHealth
  - **Data Science** and **Advanced Data Science Certificates** (2018-present)
  - **Online** Data Science and Advanced Data Science **Certificates** (2019-present)
  - Data Science **MS. degree program** (2020-present)
- **Manager** of **the Data Science Software Development Team** (2018-present)
- **Director** of **TAMUK Computational Sciences Lab** (2016-2018)
- **Assistant Director** of **TAMUK Computer Science Undergraduate ABET** (2016-2018)

➢ Internal Services

- Committee memberships at UTHealth
  - Data Science Task Force (2018-present)
  - Data Science curriculum committee (2018- present)
  - Data Science Faculty Search Committee (2018-present)
  - SPH Faculty IT Advisory Committee (2020-present)
  - BaDS Department promotion committee (2018- 2020)
- Committee memberships at TAMUK
  - Biomed Research Group (2016-2018)
  - Engineering College Council Committee (2016-2018)
  - EECS Graduate Curriculum Committee (2014-2018)
  - Undergraduate Program Review Committee (2014-2018)
  - TAMUK Graduate Faculty (2014-2018)
  - Javelina Scholarship Reviews Committee (2017-2018)
  - University Expert List (2017-2018)

➢ Recruitment

- Talk at TAMUK, Kingsville TX. April 2018.

➢ Leadership Roles in Professional Societies

- 2018 BigDIA. 4th International Conference on Big Data and Information Analytics. Houston, Texas. December 17-19, 2018.
  - Chair of Program Book Committee and Website Committee
  - Co-Chair of Local Organizing Committee
  - Committee for Peer-Reviewed Track
  - Sessions Chair
- 2020 ICSA Applied Statistics Symposium. Houston, Texas. December 13-16, 2020.
  - Co-Chair of Program Book and Website Committee
- International Symposium on Bioinformatics Research and Applications (Norfolk, VA 2015)
  - Publication Chair & Sessions Chair (2015)
  - Program Committee Member (2015-2017)
- Conference on Information and Computer Technology (2014). Program Committee Member

➢ Services as Reviewer

- Paper/Journal Reviewer
  - ACM/IEEE Transactions on Computational Biology and Bioinformatics (2015-present)
  - BMC Bioinformatics (2015-present)
  - Journal of Information Science (2017-2019)
  - International Journal of Sensor Networks (IJSNET) (2017-2018)
  - International Journal of Cloud Applications & Computing (2017-2018)
  - International Symposium on Bioinformatics Research and Applications-ISBRA (2015-2017)
- Proposal Reviewer
  - TAMUK Biomedical Research Group (2017)
- Service as a Judge
  - Poster Judge at UTHealth-SPH Research Day (2019)
  - TAMUK Annual Engineering Senior Design Conference (2017)
  - TAMUK Graduate Students' Research Poster Competition (2016-2018)

➢ Membership in Professional Societies

- Association for Computing Machinery (ACM)
- Institute of Electrical and Electronics Engineers (IEEE)
- American Public Health Association (APHA)

➢ Participation in Professional Meetings and Workshops

- First Annual Healthcare Hackathon, Rio Grande Valley Health Information Exchange (RGV HIE). Weslaco, TX, November 19-20, 2019
- Texas Advanced Computing Center (TACC) Workshop. 10th annual TACC Summer Supercomputing Institute, The University of Texas at Austin. August 1-5, 2017 Austin, Texas
- NSF CAREER writing workshop Portland, OR. April 2-4, 2017
- NSF CAREER writing workshop and meeting with Program Directors at the NSF, Washington DC. March 20-21, 2017
- CCICADA Workshop: Command, Control, and Interoperability Center for Advanced Data Analysis, Reconnect 2016 program. Cybersecurity Institute. U.S. Military Academy at West Point, NY. June 12-18, 2016.
- Sustainable Energy Systems. Prof. P.K. Sen: "Energy, Electricity and Renewable Energy Resources: Sustainable Energy Systems", TAMUK, May 2-3, 2016.
- Grant development workshops and webinars. TAMUK "New Faculty Investment Program" 2014-2016

E2. COMMUNITY SERVICE

❖ Co-Lead and Developer of the Texas Pandemic platform (http://www.texaspandemic.org/)

The platform contains maps, graphs and analyses, to provide Texans with a better understanding of COVID-19 trends at the state level, the county level, and within collections of counties (trauma service areas, public health regions, and metropolitan areas). The platform contains visualizations and analyses of COVID19 cases, deaths, vaccinations, hospitalization, and more.