# MUSTAFA AL LAIL

School of Engineering  $\diamond$  Texas A&M International University 5201 University Boulevard, Lamar Bruni Vergara Science Center 324-E, Laredo, TX 78041 Phone: (956)  $\cdot$  326  $\cdot$  2410  $\diamond$  Email: mustafa.allail@tamiu.edu

#### **EDUCATION**

# Colorado State University, Fort Collins, Colorado

August 2018

Doctor of Philosophy in Computer Science

GPA: 3.9 out of 4.0

Advisers: Professor Robert B. France and Professor Indrakshi Ray

## Colorado State University, Fort Collins, Colorado

August 2009

Master of Computer Science

King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia May 2004
Bachelor of Science in Computer Engineering

#### ACADEMIC POSITIONS

Associate Professor of Computer Science & Engineering

August 2024 - present

School of Engineering, Texas A&M International University

Associate Director August 2024 - present

Artificial Intelligence Center at Texas A&M International University, funded by NSF ExpandAI

Assistant Professor of Computer Science & Engineering

August 2018 - July 2024

School of Engineering, Texas A&M International University

Visiting Faculty Researcher

June 2023 - August 2023

Advanced Computing Systems Research, Oak Ridge National Laboratory

Visiting Scholar

June 2022 - August 2022

Department of Computer Information Systems, Colorado State University

Lecturer September 2016 - June 2017

Department of Computer Science and Software Engineering, Seattle University

#### RESEARCH INTERESTS

- Software Engineering
- Artificial Intelligence & Machine Learning
- Model-Driven Software Development
- Cybersecurity
- High Performance Computing
- Software Verification and Validation

#### SCHOLARSHIPS AND HONORS

Distinguished Scholar of the Year 2023

School of Engineering, Texas A&M International University

Distinguished Scholar of the Year 2022

School of Engineering, Texas A&M International University

Doctoral Degree Scholarship

The Ministry of Higher Education, of Saudi Arabia

Master Degree Scholarship

The Ministry of Higher Education, Kingdom of Saudi Arabia

#### TEACHING EXCELLENCE CERTIFICATIONS

#### Certificate in Effective College Instruction

August 2020 - May 2021

Association of College and University Educators and the American Council on Education

#### Certificate in Teaching with Artificial Intelligence

Feb. 2024 - August 2024

Sponsored by the Council on Academic Technology and Innovative Education

# Teaching Online- An Introduction to Online Delivery

May 2020

Quality Matters

#### **Graduate Teaching Certificate**

August 2011 - May 2016

Institute for Learning and Teaching (TILT) at Colorado State University

# Advanced Teaching Techniques: Level 2

March 2020

Top Hat

## Miscellaneous Teaching Development and Training

August 2018 - present

Numerous teaching seminars and workshops offered by TAMIU's Office of Information Technology Professional Development and Center for Faculty Development at Seattle University.

#### **PUBLICATIONS**

#### Notes:

1. The names of undergraduate researchers are <u>underlined</u> and the names of outside and international collaborators are in *italic font* and designated with asterisks \*.

#### Refereed Journal Articles

- 1. <u>Antonio Rosales</u> and **Mustafa Al Lail**, "Taming the Frame Problem—An Automated Approach for Robust UML Class Diagram Specification and Verification". Accepted for publication in the Innovations in Systems and Software Engineering journal.
- 2. Mustafa Al Lail, Marshal Moncivaias, Antonio Rosales, and Alfredo Perez\*. "Cloud-Based Access Control Including Time and Location." Electronics, 13(14), 2812.
- 3. Al Lail, Mustafa, Alejandro Garcia, and Saul Olivo. "Machine Learning for Network Intrusion Detection—A Comparative Study." Future Internet 15, no. 7 (2023): 243.
- Ramadan Abdulnabi, Mustafa Al-Lail, Indrakshi Ray, Robert B. France, "Specification, Validation, and Enforcement of a Generalized Spatio-Temporal Role-Based Access Control Model" IEEE Systems Journal 7(3), 501-515 (2013)
- 5. Al Lail, Mustafa, Marshal Moncivais, and Miguelangel Trevino, "Towards a Software System for Spatio-Temporal Authorization," The Journal of Computing Sciences in Colleges, (36, 7 2021).
- 6. <u>Miguelangel Trevino</u> and **Mustafa Al Lail**. "Database Web Application for Administering Spatio-Temporal Access Control Policies". American Journal of Advanced Research 5 (2021): 1.

#### Refereed Conferences and Workshop Proceedings

- 1. Moncivais, Marshal, and Mustafa Al Lail. "Enhancing IoT Security with Context-Aware RBAC in Cloud Architectures." Proceedings of the 33rd IEEE International Conference on Computer Communications and Networks (ICCCN 2024).
- 2. <u>Huante, Alexis</u>, and **Mustafa Al Lail**. "Network Data Complexity and Its Impact on Machine Learning Performance." Proceedings of the 33rd IEEE International Conference on Computer Communications and Networks (ICCCN 2024).
- 3. Al Lail, Mustafa, Pinto, Daniela, Almanza, Luis Alvarez, Salazar, Francisco, and Rizzi, Carolina. "Beyond Traditional Methods: Deep Learning with Data Augmentation for Robust Access Control." Proceedings of the 33rd IEEE International Conference on Computer Communications and Networks (ICCCN 2024).
- 4. <u>Antonio Rosales</u> and **Mustafa Al Lail**, and *OmarAlam*\*. "Tool Demo: Bridging the Interoperability Gap between UML Tools with XMI Import/Export Support". Proceedings of the IEEE 27th International Symposium on Real-Time Distributed Computing (ISORC 2024).
- 5. Mustafa Al Lail and <u>Huante, Alexis</u>. "Unveiling Dataset Complexity's Impact on Deep Learning Network Intrusion Detection". Proceedings of the 33rd International Conference on Computer Communications and Networks (ICCCN 2024).
- 6. Al Lail, Mustafa, Antonio Rosales, Hector Cardenas, MohammadZarour\*, and AlfredoPerez\*, "TPV: A Tool for Validating Temporal Properties in UML Class Diagrams". In the proceedings of the 46th International Conference on Software Engineering (ICSE 2024).
- 7. Pedro Valero Lara\*, Alexis Huante, Mustafa Al Lail, William Godoy\*, Keita Teranishi\*, Prasanna Balaprakash\*, and Jeffrey Vetter\*. "Comparing Llama-2 and GPT-3 LLMs for HPC kernels generation". Proceedings of the 36th International Workshop on Languages and Compilers for Parallel Computing (LCPC2023).
- 8. <u>Hector Cardenas</u>, and **Mustafa Al Lail**, "Specifying Temporal Properties in UML Using Patterns: A Tool-supported Approach". Proceedings of the ACM/IEEE 26th International Conference on Model-Driven Engineering Languages and Systems (MODELS 2023).
- 9. <u>Antonio Rosales</u>, and **Mustafa Al Lail**, "Automated Mitigation of Frame Problem in UML Class Diagram Verification". Proceedings of the ACM/IEEE 26th International Conference on Model-Driven Engineering Languages and Systems (MODELS 2023).
- 10. Moncivais, Marshal, and Mustafa Al Lail. "Poster: Integrating Spatio-temporal Authorization with Generic Cloud-based Software Architecture for Internet of Things Devices." Proceedings of the 28th ACM Symposium on Access Control Models and Technologies, pp. 59-61. 2023.
- 11. <u>Cervantes, Erick, Mustafa Al Lail, Edwin Torres,</u> and Khaled Enab. "Performance Evaluation of Supervised Machine Learning Algorithms to Predict Shale Oil Production.." In IISE Annual Conference and Expo. IISE, 2023.
- 12. Lars Hamann\*, Martin Gogolla\*, and Mustafa Al Lail. "Categorization of Approaches to Extend and Reuse OCL". Proceedings of the 25th International Conference on Model Driven Engineering Languages and Systems: Companion Proceedings, pp. 847-851. 2022.
- 13. Al Lail, Mustafa, Antonio Rosales, Hector Cardenas, Lars Hamann\*, and Alfredo Perez\*. "Transformation of TOCL Temporal Properties into OCL". Proceedings of the 25th International Conference on Model Driven Engineering Languages and Systems: Companion Proceedings, pp. 847-851. 2022.
- 14. <u>Hector Cardenas</u>, <u>Ryan Zimmerman</u>, <u>Antonio Rosales</u>, **Mustafa Al Lail**, and *Alfredo Perez*\*, "Formal UML-based Modeling and Analysis for Securing Location-based IoT Applications". Proceedings of the IEEE 19th International Conference on Mobile Ad Hoc and Smart Systems (MASS),

- pp. 722-723. IEEE, 2022.
- 15. Al Lail, Mustafa, Alejandro Garcia, and Saul Olivo, "Machine Learning for Network Intrusion Detection- A Comparative Study". Presented at IISE Lean Six Sigma & Data Science Conference 2022. Atlanta, Georgia, September 19 21, 2022.
- 16. Mustafa Al Lail, "Towards Cloud-Based Software for Incorporating Time and Location Into Access Control Decisions", In Proceedings of the 26th ACM Symposium on Access Control Models and Technologies, pp. 55-57. 2021.
- 17. Mustafa Al-Lail, Wuliang Sun, Robert B. France, "Analyzing Behavioral Aspects of UML Design Class Models Against Temporal Properties", In Proceedings of The 14th International Conference on Quality Software (QSIC 2014), Dallas, Texas, USA October 2014, 196-201
- 18. **Mustafa Al-Lail**, Ramadan Abdunabi, Robert B. France, Indrakshi Ray: "An Approach to Analyzing Temporal Properties in UML Class Models", in Proceedings of MoDeVVa@MoDELS 2013: 77-86
- 19. Mustafa Al-Lail, "A Framework for Specifying and Analyzing Temporal Properties of UML Class Models". Demos/Posters/StudentResearch@MoDELS 2013: 112-117
- 20. Mustafa Al-Lail, Ramadan Abdunabi, Robert B France, Indrakshi Ray, 2013, "Rigorous Analysis of Temporal Access Control Properties in Mobile Systems", in Proceedings of 18th IEEE International Conference on the Engineering of Complex Computer Systems, Singapore July 2013, 246-251

#### TEACHING EXPERIENCE AND INTERESTS

#### **Graduate Courses**

- Object Oriented Analysis and Design
- Software Architecture
- Software Design Patterns
- Internet of Things (IoT) and Cloud Computing

## **Undergraduate Courses**

- Fundamentals of Programming
- Object Oriented Programming
- Software Development
- Programming Languages
- Machine Learning
- Software Engineering and Project Development

- Applied Data Mining
- Cybersecurity
- Software Verification and Validation
- Computer Security
- Fundamentals of Databases
- Networks and Data Communication
- Electronic Devices and Applications
- Undergraduate Research

## **Funded Projects**

- 1. PI: Khaled Enab, Co-PI: Mustafa Al Lail, Co-PI: Deepak Ganta, and Co-PI: Kenneth Tobin. "AI Institute: Physics-Based AI for Energy Transition", National Science Foundation (NSF), \$399.855.
- 2. PI: Kenneth Tobin, **Co-PI: Mustafa Al Lail**, Co-PI: Deepak Ganta, and Co-PI: Kenneth Tobin. "STEM Connector", The National Aeronautics and Space Administration (NASA), \$963,000.
- 3. PD: Alfredo Ramirez, Co-PD:Kameron Jorgensen, Senior Faculty: **Mustafa Al Lail**, "Academic Recovery and Data Analysis (ARDA)", USA Department of Education, \$2,999,783.00.
- 4. **PI:** Mustafa Al Lail, "Class Diagram Analyzer (CDA): Tackling the Software Crisis by the Integration of Formal Methods and Model-Driven Engineering Through the Development of a Novel, Effective, Efficient, and Usable Tool", Texas A&M International University Presidential Research Development Grant, 09/23 02/25, \$50,000.
- 5. **PI:** Mustafa Al Lail, "Building Software and Data Analytic Applications for Solving DOE Scientific Problems", USA Department of Energy, 06/23 08/23, \$49,800.
- 6. **PI:** Mustafa Al Lail, "Live Parking Lot Maps using Computer Vision", Texas A&M International University, 09/23 05/24, \$44,000.
- 7. **PI:** Mustafa Al Lail, "Building Heart Rhythms Classification Device for Human", Texas A&M International University, 12/22 05/23, \$11,500.
- 8. **PI:** Mustafa Al Lail, "Addressing the Complexity of Access Control Decision and Administration Through the Use of Artificial Intelligence Techniques", Texas A&M International University, 12/22 05/23, \$6,000.
- 9. **PI:** Mustafa Al Lail, "Investigating the Influence of Dataset Complexity on the Performance of Machine Learning Models for Network Intrusion Detection", Texas A&M International University, 08/23 05/24, \$6,000.
- 10. **PI:** Mustafa Al Lail, "Phishing Detection Using Machine Learning", Texas A&M International University, 01/22 05/24, \$6,000.
- 11. **PI:** Mustafa Al Lail, "Improvements of The Tool Support for Uncovering Faults in Software Design Models", University Research Grant, Texas A&M International University, 9/22 8/23, \$10,000.
- 12. **PI:** Mustafa Al Lail, "A Tool Support for Uncovering Faults in Software Design Models", University Research Grant, Texas A&M International University, 9/21 8/22, \$10,000.
- 13. **PI:** Mustafa Al Lail, "Secure Cloud-based Software System Incorporating Time and Location Into Access Control Decisions", ACT on IDEAS Fellowship Mini Grant, Texas A&M International University, 1/22 5/22, \$3,000.
- 14. **PI:** Mustafa Al Lail, "Towards Cloud-Based Software for Incorporating Time and Location Into Access Control Decisions", ACT on IDEAS Fellowship Mini Grant, Texas A&M International University, 8/21 12/21, \$3,000.
- 15. **PI:** Mustafa Al Lail, "Software Implementation of Generalized Spatio-Temporal Role-Based Access Control Model (GSTRBAC)", ACT on IDEAS Fellowship Mini Grant, Texas A&M International University, 1/21 5/21, \$3,000.

16. **PI:** Mustafa Al Lail, "Software Implementation of Generalized Spatio-Temporal Role-Based Access Control Model (GSTRBAC)", ACT on IDEAS Fellowship Mini Grant, Texas A&M International University, 8/20 - 12/20, \$3,000.

#### STUDENT SUPERVISION

## Undergraduate Research Conference Oral and Poster Presentations

- 1. Miguelangel Trevino, Mustafa Al Lail, "Database Web Application for Administering Spatio-Temporal Access Control Policies". Accepted at the 2021 International Conference of Advanced Research in Applied Science, Engineering and Technology (ICARASET'21).
- 2. Antonio Rosales, Hector Cardenas and Mustafa Al Lail,, "A Tool Support for Uncovering Faults in Software Design Models". Poster presentation at the 17th Annual PATHWAYS Student Research Symposium, College Station, TX, March 3-4, 2022.
- 3. Edwin Torres, Erick Cervantes, Mustafa Al Lail, and Khaled Enab, "Efficient Prediction of Shale Oil Production Rates Using Machine Learning". Poster presentation at the 17th Annual PATH-WAYS Student Research Symposium, College Station, TX, March 3-4, 2022.
- 4. Marshal Moncivais, Carlos Delgado, Robert Benton, Mustafa Al Lail, and Alfredo Perez, "Secure Cloud-based Software System Incorporating Time and Location Into Access Control Decisions". Poster presentation at the 17th Annual PATHWAYS Student Research Symposium, College Station, TX, March 3-4, 2022.
- 5. Jesus Pachicano, David Haunschmied, and Mustafa Al Lail, "Detecting Network Intrusions Using Supervised Machine Learning Techniques and Feature Selection". Poster presentation at the 17th Annual PATHWAYS Student Research Symposium, College Station, TX, March 3-4, 2022.
- 6. Steven Rangel, Sofia Garza, and Mustafa Al Lail, "Application of Machine Learning Algorithms for Intrusion Attacks". Poster presentation at the 17th Annual PATHWAYS Student Research Symposium, College Station, TX, March 3-4, 2022.
- Alejandro Garcia, Saul Olivo, and Mustafa Al Lail, "Machine Learning Approach to Intrusion Detection". Poster presentation at the 17th Annual PATHWAYS Student Research Symposium, College Station, TX, March 3-4, 2022.
- 8. Mario Juarez, Carlos Gonzalez, and Mustafa Al Lail, "Machine Learning Technique for Intrusion Detection in Cloud Computing and Internet of Things". Poster presentation at the 17th Annual PATHWAYS Student Research Symposium, College Station, TX, March 3-4, 2022.
- 9. Marshal Moncivais, Miguelangel Trevino, Carlos Delgado, and Mustafa Al Lail, "Software for Incorporating Time and Location into Access Control Decisions". Poster presentation at the 2021 Texas Undergraduate Research Day Conference, Feb. 23-24, 2021.
- 10. Omar Botello, Reynaldo Vielma, Marshal Moncivais, Jaqueline Vega, Miguelangel Trevino, and Mustafa Al Lail, "A Software Design for Mobile Applications with Spatio-Temporal Authorization," Poster presentation at the 16th Annual PATHWAYS Student Research Symposium, Laredo, TX, Nov. 7-8, 2019.
- 11. Alex Aleman and Mustafa Al Lail, "An Implementation of GSTRBAC A Novel Access Control Model for Mobile Applications". Poster presentation at Lamar Bruni Vergara Academic Conference 2019, Laredo, TX.
- 12. Hector Cardenas and Mustafa Al Lail,, "A Tool Support for Uncovering Faults in Software Design Models". Poster presentation at the 18th Annual PATHWAYS Student Research Symposium, Galveston, TX, March 2-3, 2023.

- 13. Jacob Flores, Javid Alasgarli, and Mustafa Al Lail,, "Preemptive IoT botnet detection using machine learning model". Poster presentation at the 18th Annual PATHWAYS Student Research Symposium, Galveston, TX, March 2-3, 2023.
- Erick Cervantes, Jacob Flores, and Mustafa Al Lail,, "Domain Name-based Dataset for Detecting Phishing Attacks". Poster presentation at the 18th Annual PATHWAYS Student Research Symposium, Galveston, TX, March 2-3, 2023.
- 15. Mario Juarez, Luis Moreno, Felipe Rivas and Mustafa Al Lail,, "Building Heart Rhythms Classification Device for Humans". Poster presentation at the 18th Annual PATHWAYS Student Research Symposium, Galveston, TX, March 2-3, 2023.
- 16. Luis Moreno, Daniel Salinas and Mustafa Al Lail,, "Machine Learning Based Detection on DDos Attacks for Iot Systems". Poster presentation at the 18th Annual PATHWAYS Student Research Symposium, Galveston, TX, March 2-3, 2023.
- 17. Alexis Haunte, Saul Olivo, Vilen Elliott and Mustafa Al Lail,, "Intrinsic Dimensionality for Machine Learning A Comparative Study". Poster presentation at the 18th Annual PATHWAYS Student Research Symposium, Galveston, TX, March 2-3, 2023.
- 18. Jhonny Gonzalez, Jose Gonzalez and Mustafa Al Lail,, "Creating a Graphical User Interface to Design UML Class Diagrams for Analysis". Poster presentation at the 18th Annual PATHWAYS Student Research Symposium, Galveston, TX, March 2-3, 2023.

# Undergraduate Capstone Project

David Hatt, Matthew Wenala, Yousef Alturaifi, Zean Rivera (September 2016 - June 2017)
 Project Title: "PACCAR BOM FEEDBACK"
 Software delivered to PACCAR Inc. company
 Poster presented at Seattle University's Project Day event, Seattle, WA

#### INDUSTRY POSITIONS

#### Khalid Ali Alturki & Sons

Senior Network Engineer

November 2004 - February 2006 Alkhobar, Saudi Arabia

- Designed and implemented a WAN project for connecting ten sites to the company's corporate network.
- Installed, configured, and maintained the servers and services for the above project such as: DNS servers, exchange servers, DHCP, ISA, SQL, file/print, and Symantec Anti-Virus solution.
- Performed network, server, PC, and users troubleshooting to isolate and resolve problems.
- Designed and supervised a structured wiring project as project manager.
- Trained and supervised a group of IT specialists.
- Monitored various hardware and software platforms on a regular basis to ensure efficiency.
- Installed and configured wireless network services.
- Participated in managing many IT hardware, software, and network projects.
- Implemented the necessarily changes for upgrading hardware and software network components.

#### **Amaleed Trading Est**

Network Administrator

January 2001- October 2004 Alkhobar, Saudi Arabia

- Maintained, upgraded, and installed service packs on Windows 2000 servers.
- Performed Active Directory and Exchange tasks such as creating new users' accounts and emails.

- Provided network, server, PCs, and users troubleshooting to isolate and resolve common problems.
- Assisted the IT technical in providing users services by addressing users' requests during peak periods.
- Evaluated, recommended and applied new technology and solutions to optimize operating efficiency.
- Installed, upgraded, and supported desktop applications on Windows 2000 and XP.
- Performed escalated users support.

Student Network Administrator

# King Fahd University of Petroleum and Minerals

February 2003-January 2004 Dhahran, Saudi Arabia

- Secured, maintained, and replaced laboratory equipment, supplies, and personal computers.
- Coordinated system administration tasks including creating students' accounts and email addresses.
- Documented all network procedures of existing systems.
- Provided technical support for students and faculty.
- Installed, upgraded, and configured network printers.

#### **International Business Machines**

June 2002 - August 2002 Alkhobar, Saudi Arabia

Network Engineer Intern

- Installed and configured an IP/TV network service at King Fahd University of Petroleum and Minerals (KFUPM).
- Installed and configured a wireless network at KFUPM.
- Participated in design of Marafiq company's network infrastructure.
- Simulated and implemented File/Print server for Marafiq Company project.

#### GRADUATE SCHOOL POSITIONS

# Dept. of Computer Science, Colorado State University

January 2016 - May 2016 Fort Collins, CO

Graduate Teaching Assistant

- Assisted in teaching CS470: Computer Architecture.
- Prepared and graded quizzes, homework assignments, and midterm exams.
- Prepared and presented a number of lectures.

# Dept. of Computer Science, Colorado State University Guest Lecturer

August 2009- May 2016 Fort Collins, CO

- Prepared and presented a number of guest lectures in the security and software engineering classes at Colorado State University such as: CS 556 Computer Security, CS517 Software Specification & Design, CS414 Object Oriented Design, and CS314 Software Engineering.
- Prepared and presented numerous lectures and talks in the Security and Software Engineering research groups at Colorado State University.

#### School of Global Environmental Sustainability, Colorado State University

April

2015-August 2015

Graduate Research Assistant

Fort Collins, CO

- Created a website geared towards analyzing and curating time-lapse imagery of rivers using the PyBossa crowdsource framework.

# Dept. of Computer Science, Colorado State University

Graduate Research Assistant

August 2011-May 2014 Fort Collins, CO

- Carried out extensive research activities on three projects:
  - 1. Specification and Analysis of Access Control Models for Mobile Applications
  - 2. A Framework for Specifying and Analyzing Temporal Properties
  - 3. Lightweight Analysis of Software Models

# Dept. of Philosophy, Colorado State University

August 2008 - December 2008 Fort Collins, CO

Graduate Teaching Assistant

- Assisted in teaching and grading a graduate course Classical Arabic 1: Advanced Introduction.
- Carried out the usual duties of teaching assistant such as grading, helping student to understand the course material, and test and course preparation.
- Prepared and presented several lectures and review sessions.

# Dept. of Philosophy, Colorado State University

May 2008 - August 2008

Graduate Research Assistant

Fort Collins, CO

- Helped in the development of a new computer-software system for academic and scholarly typesetting and typography. The Oriental TEX project was initiated to facilitate the development of high quality typography and typesetting of academic and scholarly texts that require the Arabic script, such as critical editions and monographs.

# PROFESSIONAL/LEADERSHIP SERVICES AND ACTIVITIES

# Scientific Community Service

# Program Committee Co-Chair

The 28th IEEE International Symposium on Real-Time Distributed Computing, Toulouse, France, 2025.

#### Steering Committee Member

Consortium for Computing Sciences in Colleges (CCSC): South Central Region April 2021 - present

#### Leadership Training

TAMIU's Leadership Experience Program

August 2019 - May 2020

The purpose of this program is to provide participants with knowledge, skills, tools, and connections to effectively lead people and organizations.

#### **Professional Affiliations**

Association for Computing Machinery (ACM), Institute of Electrical and Electronics Engineers (IEEE) , Upsilon Pi Epsilon (UPE)

#### Review Activities

- ACM-IEEE International Conference on Software Engineering (ICSE)
- ACM-IEEE International Conference on Model Driven Engineering Languages and Systems (MOD-ELS)

- Workshop on Modeling in Software Engineering at ICSE (MiSE)
- ACM-IEEE International Conference on Automated Software Engineering (ASE)
- International Conference Software Language Engineering (SLE)
- ACM-IEEE Symposium on Formal Methods and Models for System Design
- Journal of Software and System Modeling(SoSyM)
- Journal of IEEE Transactions on Software Engineering (TSE)

#### Student Volunteer at Conferences

- 13th ACM Symposium on Access Control Models and Technologies, Estes Park, CO
- ACM/IEEE 16th International Conference on Model Driven Engineering Languages and Systems, Denver, CO
- Workshop on Modeling in Software Engineering at ICSE 2009, Vancouver, Canada

# University, College, Department Service

#### **Committees**

- School of Engineering search committee for Endowed Full-Professor of Computer Engineering, Spring 2022
- School of Engineering search committee for Visiting Associate/Assistant Professor of Computer Engineering, Spring 2022
- School of Engineering search committee for Petroleum Engineering Assistant professor, Spring 2020
- ABET accreditation committee of System Engineering, Spring 2019
- Assessment committee of the B.S of Computer Engineering and the Computer Science minor
- B.S. Computer Engineering Curriculum committee
- Computer Science Minor Curriculum committee

#### Miscellaneous Service

Computer Science & Engineering Association at TAMIU: I have established and advised the Computer Science club at Texas A&M International University since Fall 2019. The club aims to build and sustain a community of students to be part of in what can often looks like an isolated field of study at TAMIU.

Computer Science Tutoring Program: I have established a new tutoring program for Computer Science. This program aims to support computer science education and attract more students to computer science and engineering majors.

#### Conference Judging

- 17th Annual PATHWAYS Student Research Symposium, March, 2022
- United ISD's Annual Science Fair Science Fair 2020
- The 2019 LBV Academic Conference, April, 2019
- 16th Annual PATHWAYS Student Research Symposium, November, 2019
- The School of Engineering and Math Conference at TAMIU, November, 2019.

• The School of Engineering and Math Conference at TAMIU, November, 2018.

# Student Recruitment Activities

- Computer Science and Engineering Q&A Session
- Virtual Student Organization Fair
- Halloween Fest at TAMIU.
- Movie Night.

## Community Service

• 2019-2020 STEM Advisory Board for Harmony Public Schools

# Upsilon Pi Epsilon International Honor Society for the Computing Sciences Beta Chapter at Colorado State University

- President (2013-2015)
- Vice-President (2012-2013)
- Treasurer (2011-2012)
- Historian (2010-2011)
- Member (2010-present)

#### Athletic Activities

- Kingdom of Saudi Arabia Waterpolo National Team 1995-2001
- Al Safa Club Swimming and Waterpolo teams 1991-2002
- Al Qadisiyah Waterpolo Team 2002-2004
- King Fahd University Swimming Team 1997-2003
- Colorado State University Waterpolo Team 2015-2016