Dr. Ahmad Jamal Tayeb

Assistant Professor, Faculty of Computing and Information Technology — King Abdulaziz University, Jeddah
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EDUCATION

2024 **Ph.D. in Computer Science**
College of Arts and Sciences, Florida State University, Tallahassee, Florida, United States
Dissertation: Investigating and Enhancing Online Software Development Resources: Automated Responses, Semantic Search, and Tagging in Video Tutorials

2018 **M.S. in Information Sciences and Technologies**
B. Thomas Golisano College of Computing and Information Sciences, Rochester Institute of Technology, Rochester, New York, United States

2013 **B.S. in Information Technology**
Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah

ACADEMIC & PROFESSIONAL POSITIONS

2025 – Present **Director of the Electronic Systems Division**
Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah

2025 – Present **Assistant Professor, Department of Information Technology**
Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah

2025 **Part-time Lecturer**
King Faisal University, Jeddah

2023 – 2024 **Consultant, Transportation Data and Analytics Office**
Florida Department of Transportation, United States

2022 – 2024 **Graduate Research Assistant**
Florida State University, Tallahassee, Florida, United States

2022 **Graduate Teaching Assistant**
Florida State University, Tallahassee, Florida, United States

2018 – 2025 **Lecturer**
Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah

2014 – 2018 **Teaching Assistant**
Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah

PUBLICATIONS

2026 **Tayeb, Ahmad**, Sonia Haiduc, and Mohammad D. Alahmadi. "VidTutorAssistant: Automating Responses to Programming Tutorial Questions." 2026 41st IEEE/ACM International Conference on Automated Software Engineering (ASE), Tools and Datasets.

Tayeb, Ahmad J., and Mohammad D. Alahmadi. "The Perception and Impact of Non-inclusive Language in Software Artifacts." Journal of Systems and Software, Volume 242, 2026, 113024.

Alsulami, Abdulaziz A., Badraddin Alturki, **Ahmad J. Tayeb**, Rayan A. Alsemmeari, and Raed Alsini. "An Adaptive Intrusion Detection Framework for IoT: Balancing Accuracy and Computational Efficiency." Computers, Materials & Continua 87, no. 3 (2026): 1.

Alsulami, Abdulaziz A., Qasem Abu Al-Haija, Rayed Alakhtar, Huda Alsobhi, Rayan A. Alsemmeari, Badraddin Alturki, and **Ahmad J. Tayeb**. "Improving Tree-Based Lung Disease Classification from Chest X-Ray Images Using Deep Feature Representations." Bioengineering 13, no. 3 (2026): 267.

Alenezi, Motab F., Alotaibi, Fahad M., Alturki, Badraddin, **Tayeb, Ahmad J.**, Alsulami, Abdulaziz A., and Alhejaili, Abdullah. "A Family-Aware Hierarchical XGBoost Framework for Efficient IoT Intrusion Detection." Computer Modeling in Engineering & Sciences, Volume 148, no. 3, 2026, 1-10.

Alsulami, Abdulaziz A., Al-Haija, Qasem Abu, Alakhtar, Rayed, **Tayeb, Ahmad J.**, Alturki, Badraddin, Alsobhi, Huda, and Alsemmeari, Rayan A. "An Adaptive Federated Learning with XGBoost Ensembles for Intrusion Detection in Heterogeneous IoT Networks." Computers, Materials & Continua, Volume 88, no. 3, 2026, 1-10.

Alsulami, Abdulaziz A., Al-Haija, Qasem Abu, **Tayeb, Ahmad J.**, Alturki, Badraddin, Alqahtani, Ali, and Alqahtani, Nayef. "Evaluating an Artificial Immune System-Evolved Decision-Tree Ensemble for Chest X-Ray Classification." Electronics, Volume 15, no. 17, 2026, 4002.

2025 **Tayeb, Ahmad J.**, and Sonia Haiduc. "Intelligent Semantic Matching (ISM) for Video Tutorial Search using Transformer Models." 2025 IEEE/ACM 22nd International Conference on Mining Software Repositories (MSR). IEEE, 2025.

Tufano, Rosalia, Alberto Martin-Lopez, **Ahmad Tayeb**, Ozren Dabić, Sonia Haiduc, and Gabriele Bavota. "Deep Learning-based Code Reviews: A Paradigm Shift or a Double-Edged Sword?" 2025 IEEE/ACM 47th International Conference on Software Engineering (ICSE).

Alzahrani, Abdullah, Nasir Jauwairia, **Ahmad J. Tayeb**, Elisabeth André, and Muneeb I. Ahmad. "What Do the Face and Voice Reveal? Investigating Trust Dynamics During Human-Robot Interaction." 2025 20th ACM/IEEE International Conference on Human-Robot Interaction (HRI), 400–409. IEEE, 2025.

2024 **Tayeb, Ahmad**, Mohammad D. Alahmadi, Elham Tajik, and Sonia Haiduc. "Investigating Developers' Preferences for Learning and Issue Resolution Resources in the ChatGPT Era." International Conference on Software Maintenance and Evolution (ICSME 2024), Flagstaff, AZ, United States.

Alahmadi, Mohammad D., Khalid T. Murs, Mohammed A. Alqarni, **Ahmad J. Tayeb**, and Faisal S. Alsubaei. "Analyzing and Categorization Developer Intent on Twitch Live Chat." Programming and Computer Software 50 (2024): 392–402.

Alahmadi, Mohammad D., Mohammed Alharbi, **Ahmad Tayeb**, and Moayad Alshangiti. "Evaluating Large Language Models' Proficiency in Answering Arabic GAT Exam Questions." Engineering, Technology & Applied Science Research 14, no. 6 (Dec. 2024): 17774–17780.

2023 Malkadi, Abdulkarim, **Ahmad Tayeb**, and Sonia Haiduc. "Improving Code Extraction from Coding Screencasts using a Code-Aware Encoder-Decoder Model." 2023 38th IEEE/ACM International Conference on Automated Software Engineering (ASE), Luxembourg, 1492–1504.

2022 Alsulami, Abdulaziz A., Qasem Abu Al-Haija, **Ahmad Tayeb**, and Ali Alqahtani. "An Intrusion Detection and Classification System for IoT Traffic with Improved Data Engineering." Applied Sciences 12, no. 23 (2022): 12336.

2020 Alahmadi, Mohammad, **Ahmad Tayeb**, Abdulkarim Malkadi, Esteban Parra, and Sonia Haiduc. "UIScreens: Extracting User Interface Screens from Mobile Programming Video Tutorials." Proceedings of the 28th ACM Joint Meeting ESEC/FSE 2020, 1660–1664.

FUNDED RESEARCH PROJECTS

2026 **IPP 1952-611-2026**
Classified Publication Support Program, Deanship of Scientific Research, King Abdulaziz University, Jeddah

IPP 1957-611-2026
Classified Publication Support Program, Deanship of Scientific Research, King Abdulaziz University, Jeddah

2025 **IPP 1304-611-2025**
Classified Publication Support Program, Deanship of Scientific Research, King Abdulaziz University, Jeddah

IPP 1315-611-2025
Classified Publication Support Program, Deanship of Scientific Research, King Abdulaziz University, Jeddah

LEADERSHIP, SERVICE & ENTREPRENEURSHIP

2026 **Course instructor, "Space Software Design & Development"**
Space Academy, Saudi Space Agency

2026 **Judge, Mawhiba Enrichment Research Program student projects**
Mawhiba, Summer Program

2025 **Lecture presenter, "Studying Programming," Labeeb Forum on Strategies for Distinguished University Learning**
Center for University Education Development, King Abdulaziz University, Jeddah

2025 **Workshop presenter, Data Analysis & Collection (5-day Python workshop)**
Mawhiba, Summer Program

2023 – 2024 **President, Saudi Students Association**
Florida State University, Tallahassee, Florida, United States

2022 – 2023 **Vice President, Saudi Students Association**
Florida State University, Tallahassee, Florida, United States

2019 – 2021 **Course Coordinator, Problem-Solving and Programming (CPIT 110)**
Preparatory Year, King Abdulaziz University, Jeddah

2019 – 2021 **Director, Academic Support Unit**
Computer Skills Department, King Abdulaziz University, Jeddah

2018 – 2021 **Supervisor, Tutoring Lab**
King Abdulaziz University, Jeddah

2018 – 2021 **Supervisor, Programming Club**
King Abdulaziz University, Jeddah

2018 – 2019 **Course Developer, Problem-Solving and Programming (CPIT 110)**
Preparatory Year, King Abdulaziz University, Jeddah

2013 – 2016 **Founder and CEO, ArcTech**
Application and System Development Services

2013 – 2016 **Founder and CEO, TechPower**
Non-Profit Project for Supporting Arabic Content in Computer Science Education

2013 – 2014 **Supervisor, Training Unit; Student Activity Unit; and Student Council**
King Abdulaziz University, Jeddah

2012 – 2013 **President, Student Council**
Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah

2012 – 2013 **Founder and Leader, "Fast Technology Team"**
Computer and Smartphone Maintenance Services

2013 **Course Instructor, Video Game Development**
Summer Forum Program, Gifted Education Administration of Jeddah

2013 **Lab Instructor, Selected Topics – Android Application Development (CPIT 490)**
King Abdulaziz University, Jeddah

2012 **Course Instructor, Android Application Development**
Summer Forum Program, Gifted Education Administration of Jeddah

2012 **Trainee, Ground Services / Information Technology Management**
Saudi Arabian Airlines, Jeddah

2010 – 2012 **Supervisor, King Abdulaziz University Students' Online Forum**
skaau.com

HONORS & AWARDS

2025 **Certificate of Appreciation**
Center for University Education Development, King Abdulaziz University, Jeddah
For presenting the lecture "Studying Programming" at the Labeeb Forum on Strategies for Distinguished University Learning, 28 September–1 October 2025.

2024 **IEEE Computer Society TCSE Distinguished Paper Award**
IEEE Computer Society Technical Community on Software Engineering (TCSE)
For the paper "Investigating Developers' Preferences for Learning and Issue Resolution Resources in the ChatGPT Era" at ICSME 2024, Flagstaff, Arizona, United States.

2024 **Certificate of Appreciation**
Saudi Arabian Cultural Mission to the USA
Outstanding contribution as President of the Saudi Students Association at Florida State University (2023–2024).

2023 **Certificate of Appreciation**
Saudi Arabian Cultural Mission to the USA
Outstanding contribution as Vice President of the Saudi Students Association at Florida State University (2022–2023).

2019 **Faculty Award for Academic Excellence**
Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah
Awarded for academic excellence, based on nomination by students of the Department of Information Technology (2018–2019).

RESEARCH AREAS

- Natural Language Processing, Large Language Models, and Prompt Engineering
- Software Engineering
- Computing Education
- Machine Learning, Deep Learning, and Data Mining
- Databases, Information Retrieval, Data and Information Management
- Human-Computer and Human-Robot Interaction
- Cybersecurity and Intrusion Detection
- Internet of Things (IoT)

TECHNICAL SKILLS

Strong programming and problem-solving skills

Languages & Frameworks: Java, Kotlin, C#.NET, VB.NET, C, C++, Python, PHP, JavaScript, Node.js, HTML, CSS

Platforms: Android, GameMaker Studio, WordPress, Laravel, Express

Data & Databases: MySQL, SQLite, MongoDB, Neo4j, XML, database design, data mining

Photo and video editing (Photoshop, video production)

PROFESSIONAL SKILLS

- Teaching and curriculum development
- Academic leadership and program management
- Working effectively under pressure
- Self-directed learning

LANGUAGES

- Arabic
- English

PROFESSIONAL DEVELOPMENT

2016 Intensive English Program, Rochester Institute of Technology, Rochester, New York, United States (6 months)

2015 Intensive English Program, University of Oregon, Eugene, Oregon, United States (9 months)

2014 Effective Personal Productivity, LMI, Jeddah

2013 The Making of a Champion, LMI, Jeddah