# Mamdouh Alenezi

Transformative Learning Strategist

### **Profile**

Transformational education leader with a proven record of driving strategic growth, quality excellence, and innovative curriculum development. Adept at fostering a culture of excellence, I leverage technology and data-driven insights to enhance learning outcomes and student achievement. A passionate advocate for research-based learning, I have successfully directed initiatives that drive breakthroughs in education. With expertise in faculty development, enrolment management, and quality assurance, I build strong relationships with stakeholders to deliver tangible results. As a trusted leader, I make informed decisions that drive meaningful change, pushing the boundaries of what's possible in education. With a strong commitment to academic excellence, I am dedicated to impacting the lives of students and educators alike. Currently, I serve as the Director of the AI Academy at Tahakom, driving innovation and excellence in AI education and research.

### Education

Learning Track (Specialization in Strategy) Harvard Business School Online

Online July-October 2024

Courses: Strategy Execution, Sustainable Business Strategy, Disruptive Strategy.

Ph.D. in Software Engineering North Dakota State University

Fargo, ND 2011-2014

Thesis: "A New Coupling Metric: Combining Structural and Semantic Relationships".

M.S. in Software Engineering DePaul University

Chicago, IL 2010-2011

Relevant Courses: Requirements Engineering, Software Design and Architecture, Project Management, OO Design Patterns, Software Testing and Quality Assurance.

B.S. Computer Science Prince Sultan University

Riyadh, KSA 2005-2010

Relevant Courses: Software Engineering, Advanced Software Engineering, and Internet Security and Firewalls.

# **Areas of Expertise**

Software Engineering – Digital Transformation – Digital Strategy – Strategic Planning – Consultation – Data Management and Governance - Quality Management – Educational Innovation – Digital Entrepreneurship – Institutional Excellence

# **Consultancy and Funding Experience**

### Strategic Planning Consultant, (CYBEXPSU)

Riyadh, KSA 11/2023 - Present

- Provided expert guidance on the selection and implementation of various strategic planning methodologies, tailoring approaches to align with organizational goals and objectives
- Successfully led and executed multiple workshops with diverse stakeholders, effectively gathering and analyzing input to inform strategic direction
- Conducted comprehensive research and documentation of full strategies, encompassing vision, mission, goals, and initiatives, to ensure thorough understanding and alignment across all levels of the organization

### **Software Engineering Consultant**, (PSDSARC)

Riyadh, KSA 02/2023 - 02/2024

- Provided technical expertise and consulting services focusing on software engineering and related technologies
- Collaborated with teams to develop and implement software solutions that supported their research and analysis efforts, improving the efficiency and effectiveness of their work
- Identified and recommended new technologies and methodologies that could enhance the center's research and analysis capabilities, and assisted in the implementation of these solutions

#### **Software Engineering Consultant.** (Software Development Company)

Rivadh, KSA 06/2018 - 10/2018

- Implemented a software process improvement initiative to enhance efficiency and productivity in software development
- Conducted a thorough analysis of existing development processes to identify areas for optimization and streamlining
- Introduced new tools and methodologies to improve the speed and quality of software development, resulting in increased customer satisfaction and reduced time-to-market

#### Research Fund, (KACST)

**Riyadh, KSA** 01/2017 - 12/2018

- Designed and implemented a dynamic capacity provisioning system for a cloud-based network
- Developed a scalable and flexible architecture that allows for automatic adjustment of network resources in response to changing traffic patterns and demand
- Implemented machine learning algorithms to optimize network performance and minimize resource waste, resulting in improved network efficiency and reduced operational costs

### Data Science Consultant, (Major Saudi Telecom Company)

Riyadh, KSA 01/2016 - 09/2016

- Led a project team to identify and address the root causes of a high percentage of repeated tickets in the customer service department
- Conducted thorough analysis of customer service data and ticketing patterns to identify trends and areas for improvement
- Developed and implemented a plan to address the identified issues, resulting in a significant reduction in repeated tickets and improved customer satisfaction

### Software Engineering Consultant, (NISC)

**Saint Louis, MO** 01/2013 - 05/2013

- Led a project team to transform the billing management system of Walmart, a large retail company, from a traditional client-server architecture to a web service
- Designed and implemented a web-based platform that enables efficient and secure billing processes, improving the overall customer experience and reducing operational costs
- Collaborated with cross-functional teams, including software developers, system administrators, and business stakeholders, to ensure a successful migration and minimize disruption to business operations

Software Engineering Consultant, (Wisconsin Falconers Association)

**Appleton, WI** 08/2010 - 02/2011

- Designed and developed a web-based reservation system allowing visitors to easily book and manage their visits to the association's facilities
- Implemented user-friendly interface and features, such as real-time availability and scheduling, to provide an intuitive and efficient booking experience for users
- Integrated payment processing and confirmation systems to ensure seamless and secure transactions, and minimize the need for manual intervention and administrative tasks

### **Academic Ranks**

• Full Professor of Software Engineering, Prince Sultan University, Riyadh, KSA (2022 – Present)

Associate Professor of Software Engineering, Prince Sultan University, Riyadh, KSA (2018 – 2022)

• Assistant Professor of Software Engineering, Prince Sultan University, Riyadh, KSA (2014 – 2018)

# **Professional Experience**

### Al Academy Director, (Tahakom)

Riyadh, KSA 08/2024 - Now

- Spearheaded the development and implementation of AI training programs, resulting in the successful upskilling of employees and partners in AI-driven solutions for public safety and smart mobility.
- Fostered a culture of innovation and experimentation through the Al Academy, driving the development of cutting-edge Al solutions that enhance public safety and mobility.
- Collaborated with cross-functional teams to develop and deploy Al-powered products and services, resulting in improved operational efficiency and customer satisfaction.
- Developed and implemented a comprehensive AI talent development strategy, attracting and retaining top AI talent and ensuring a strong pipeline of skilled professionals to drive business growth.
- Improved AI research and development capabilities through strategic partnerships with academia and industry partners, staying at the forefront of AI advancements and applying them to real-world problems in public safety and smart mobility.

Founding Dean of College of Space and Aviation Sciences, (PSU)

**Riyadh, KSA** 04/2024 - 08/2024

Dean of Quality Assurance and Development, (*PSU*)

Riyadh, KSA 09/2020 - 08/2024

- Spearheaded the development and implementation of quality assurance frameworks, resulting in the successful attainment of ISO certifications and accreditation for the institution.
- Fostered a culture of excellence in teaching and learning through the Teaching and Learning Center, enhancing faculty development and academic advancements across the campus.
- Developed and implemented a robust Quality Management System, ensuring continuous improvement and excellence in all aspects of the institution.
- Improved institutional effectiveness through the development and implementation of comprehensive assessment and evaluation frameworks, ensuring the highest standards of quality and excellence.

## Dean of Educational Services, (PSU)

Riyadh, KSA 09/2018 - 08/2020

- Educated newly enrolled students about the organization's policies, services, and best practices, resulting in the successful completion of the first year of study
- Improved teaching and learning environment across the entire campus through inspirational leadership and assistance with academic advancements and faculty best practices
- Enhanced academic assistance practices, such as semester knowledge evaluations and yearly course placements, through increased control of educational services
- Coordinated all phases and processes of PSU student journey by leveraging best practices and restructuring the PYP into an independent department, facilitating its mission and improving the overall student experience

### Chief Information & Technology Officer, (PSU)

Riyadh, KSA 01/2015 - 08/2019

- Spearheaded the implementation of new and existing technologies, systems, and applications to support academic operations, resulting in a significant increase in student success rate
- Developed and communicated a clear vision for technology utilization across the entire University, serving as a guide for the information technology services division and ensuring alignment with the institution's goals
- Implemented an Enterprise Resource Planning (ERP) system for the university's finance, accounting, and human resources divisions, streamlining processes and improving efficiency
- Established a continuous IT planning process that benefits the community, professors, staff, and students, fostering a culture of innovation and digital transformation

### Department of Computer Science Chairman, (PSU)

Riyadh, KSA 09/2015 - 08/2016

- Led the department's leadership efforts to enhance curriculum and instructional programs, resulting in a broader range of courses and degrees available to students
- Supervised the department while promoting academic initiatives that fostered a culture of student success and staff-student solidarity, ensuring the greatest possible level of student accomplishment
- Collaborated with former students' employers to gather feedback and incorporate it into the curriculum, ensuring that the department's programs remained relevant and up-to-date with industry standards
- Successfully redesigned courses to comply with IEEE, ACM, and ABET curriculum standards, demonstrating a commitment to excellence in computer science education

# **Professional Development**

- New Course Developments: SE 411: Software Construction, SE 311: Software Requirements Engineering, SE 415: Group Dynamics & Professional Practice, SE 489: DevOps Engineering SE 495: Software Entrepreneurship, CYS 402: Secure Software Engineering
- New Track Curriculum Development: Digital Transformation Track
- New B.S. Curriculum Development: BS in Software Engineering
- Master Degree Curriculum Development: MS in Software Engineering and MS in Cybersecurity Engineering Programs
- Service & Administration (Committee): Institutional Effectiveness, Institutional Executive Quality and Planning, Institutional Quality Committee, Institutional Policy, Institutional Strategic Planning, ABET Steering, Institutional Technology and Quality, Institutional Executive Research
- Master Thesis Committee: A Context-Aware Personalization Model for Augmented Reality Applications, User Experience Dimensions, Aspects, and Measures: Systematic Literature Review, Software Architecture Stability Evolution in Open-Source Object-Oriented Systems.

### Research and Review Services

#### Conference Chair:

- 5th International Symposium on Data Mining Applications (SDMA2018)
- 6th International Conference on Data Science and Machine Learning Applications (CDMA 2020)
- 8th International Conference on Data Science and Machine Learning Applications (CDMA 2024)

### • Program Committee Membership:

- Workshop on Machine Learning for Predictive Models (MLPM 2014), 13th IEEE International Conference on Machine Learning and Applications (ICMLA 2014).
- International Conference on Computing and Informatics (ICOCI 2015).
- The Third Information Systems International Conference (ISICO 2015).
- The Tenth International Conference on Software Engineering Advances (ICSEA 2015).
- International Conference on Computing Education and Information Technology (ICCEIT 2015).
- Workshop on Machine Learning for Predictive Models in Engineering Applications (MLPMEA 2015), 14th IEEE International Conference on Machine Learning and Applications (ICMLA 2015).
- International Conference on Computing Education and Information Technology (ICCEIT 2015).
- The 7th International Conference on Information and Communication Systems (ICICS 2016).
- The 4th Symposium on Data Mining Applications (SDMA 2016).
- The 4th Saudi International Conference on Information Technology, Big Data Analysis (KACSTIT 2016).
- The Eleventh International Conference on Software Engineering Advances (ICSEA 2016).
- Special Session: Machine Learning for Predictive Models in Engineering Applications, The 18th IEEE International Conference on Machine Learning and Applications (ICMLA 2019).
- 19th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE2024)

### • Reviewer of International Indexed Journals:

- International Journal of Cloud Applications and Computing (IJCAC)
- KSII Transactions on Internet and Information Systems
- Journal of Ambient Intelligence and Humanized Computing
- International Journal of Software Engineering and Knowledge Engineering
- Information and Software Technology
- Journal of Information Security and Applications
- ACM Computing Surveys
- Applied Artificial Intelligence
- Cogent Business & Management
- Education and Information Technologies
- Information and Software Technology
- Journal of Experimental & Theoretical Artificial Intelligence