

## Muhammad Affan Khalid

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Passionate and skilled Software Developer with expertise in full-stack development, specialising in creating innovative digital solutions. Committed to delivering high-quality software that supports digital transformation and improves user experiences.

### Skills

- Programming Languages: React, Next.js, TypeScript, JavaScript, Node.js, C++, Python, HTML, CSS
- Technologies: MySQL, NoSQL, RDBMS, Git, MS Azure, Restful APIs, Agile, GitHub
- Soft Skills: Time management, communication, teamwork, problem-solving, critical thinking, and adaptability.

### Education

**MS** Computer Science.

*University of East London*

*Master's Thesis: Credit Risk Assessment using Machine Learning*

January 2023 -- May 2024

**BS** Computer Science

*National University of Computer and Emerging Sciences*

August 2018 -- May 2022

### Certifications

Microsoft Azure Fundamentals, AWS Cloud Foundation, CompTIA Security+

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### RESEARCH EXPERIENCE

#### Dissertation Research

*UEL/Engineering, London*

January 2024 – May 2024

- **Developed** a comprehensive credit risk assessment model using advanced machine learning techniques, Random Forest, XGBoost, Decision tree, and Logistic Regression to improve prediction accuracy.
- **Implemented** data pre-processing techniques like imputation, normalisation, and feature engineering to enhance model performance.
- **Conducted** in-depth literature review to identify relevant research gaps and inform research methodology.
- **Utilised** statistical software to analyse large datasets and generate insightful visualisations.
- **Collaborated** with academic experts to refine research questions and interpret findings.
- **Presented** research findings at conferences and workshops, demonstrating strong communication skills.

### PROFESSIONAL EXPERIENCE

#### Full Stack Developer

August 2022 – January 2023, *Devsinc, Lahore, Pakistan*

- Developed full-stack web applications using MERN Stack, focusing on creating intuitive and efficient user interfaces.
- Implemented microservice APIs, ensuring robust and scalable software architecture.
- Conducted comprehensive code reviews to maintain high-quality standards and improve code efficiency.
- Collaborated with cross-functional teams to translate user requirements into technical specifications.
- Successfully contributed to both the web application and admin panel by utilising React, including implementing new features that enhanced the functionality of both platforms.
- Consistently delivered optimised, organised, and well-documented code following the DRY principle, reducing redundancy, and increasing maintainability and scalability of the application.

### TEACHING & MENTORING EXPERIENCE

#### Teaching Assistant

*Data Structures and Algorithms*

- **Assisted** in conducting weekly laboratory sessions, and guiding students through practical assignments. September 2019 -- January 2020
- **Developed** and delivered engaging tutorial sessions to clarify complex concepts and problem-solving techniques.
- **Graded** student assignments and provided constructive feedback to improve their understanding.
- **Collaborated** with faculty to design and implement effective teaching strategies.
- **Mentored** students on academic and professional development, fostering a supportive learning environment.

### Professional Development

- Continuous learner of emerging technologies and software development frameworks
  - Passionate about exploring innovative approaches to solving complex technical challenges.
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