Mo Barati
Software Engineer

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Personal Profile

Solution-focused Software Engineer with expertise in Java (OOP) and Python, and hands-on experience designing and managing databases using MySQL and MongoDB. Skilled in deploying cloud solutions, conducting systems analysis with UML, and implementing robust security protocols. Proficient in web development (HTML/CSS/JavaScript), networking, and applying machine learning techniques to solve real-world problems. Highly collaborative, with a track record of delivering innovative, efficient solutions aligned with organisational goals.

Technical Skills

Programming & Software Development – Java (OOP, RESTful APIs, concurrent applications), Python (data structures, algorithms, network programming), HTML, CSS, JavaScript.
Database – MySQL, MongoDB, ER modelling, SQL, normalization principles.
Cloud & DevOps – Docker, Kubernetes, AWS, Google Cloud Platform.
Systems & Architecture – UML modelling, system architecture design, computer architecture fundamentals.
Information Security – Cryptography, access control, intrusion detection.
AI & Machine Learning – Classification models, applied ML techniques.
Software Engineering Practices – Agile methodologies, comprehensive testing, professional ethics (data protection, IP considerations).
Collaborative mindset - Strong team player, committed to continuous learning and shared success.

Education & Certificates

Westminster Adult Education Service   September 2024 – December 2024
AWS Certified Cloud Practitioner

University of London, Birkbeck   October 2020 – May 2024
BSc (Hons) Computer Science

Software Engineering Experience

YahooChatApp *(Java)*

Designed and implemented a real-time chat application using Java sockets for network communication.

Developed both client and server modules, enabling concurrent messaging and basic session management.

Applied networking protocols, multithreading, and UI design fundamentals to deliver a functional communication tool.

ATM-Machine Simulator *(Java)*

Created a Java-based ATM transaction simulator replicating key banking operations including deposits, withdrawals, balance checks, and PIN verification.

Implemented secure input handling and modular architecture to reflect realistic financial workflows.

Personal Portfolio Website *(HTML/CSS)*

Built and deployed a responsive portfolio site using HTML and CSS, hosted on GitHub Pages.

Showcases projects and skills in a clear, user-friendly format to engage potential employers.

University Projects & Skills

Applied core computing concepts and technologies through academic projects, including:

Java & Python Development – Built OOP-based applications, implemented algorithms, and developed RESTful APIs.

Database Design – Created relational models (ER diagrams, normalization) and implemented SQL queries.

Cloud Deployment – Used Docker and Kubernetes to deploy applications on Google Cloud and AWS.

Web Development – Designed dynamic applications using PHP, HTML, and CSS.

Systems Analysis & Security – Produced UML diagrams, implemented cryptography and access control measures.

AI/ML Applications – Developed classification models and decision-making algorithms.

Networking – Implemented socket programming and worked with network protocols.
Agile Practices – Collaborated in group projects using iterative development and testing.