

RAHMAN MOHAMMAD

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OBJECTIVE

Software Engineer with a Master's in Computer Science and strong hands-on experience designing, developing, and deploying scalable RESTful/GraphQL APIs, microservices, and cloud-native backend systems (AWS Lambda, DynamoDB, Docker, Kubernetes). Proven track record of building real-time data processing tools, integrating AI/ML capabilities, and leveraging modern AI-assisted development tools to streamline engineering workflows and accelerate project delivery.

TECHNICAL SKILLS

- **Backend & APIs:** Node.js, Express.js, Spring Boot, RESTful APIs, GraphQL, Microservices Architecture, WebSockets, Flask, Django
- **Cloud & DevOps:** AWS (Lambda, DynamoDB), Google Cloud Platform (GCP), Docker, Kubernetes, Jenkins, GitHub Actions, CI/CD Pipelines
- **Databases & Caching:** PostgreSQL, MongoDB, DynamoDB, MySQL, PL/SQL, Redis (*familiar*)
- **AI & Machine Learning:** LLM Integration, AI-Assisted Development Tools (GitHub Copilot, Cursor), PyTorch, YOLO, Python
- **Languages:** Java, Python, JavaScript, SQL, C, C++, C#
- **Testing & Agile:** React Testing Library, JUnit, Postman, TDD, Agile/Scrum, JIRA, Git

PROFESSIONAL EXPERIENCE

KS Systems

Texas, USA

Application Developer (Remote-Contract)

November 2025 – Current

- Architected scalable serverless microservices on AWS Lambda, optimizing DynamoDB queries to reduce backend API response latency by **25–30%**.
- Engineered and secured RESTful and GraphQL endpoints across distributed services to support dynamic data rendering across **10+ enterprise dashboard components**.
- Established automated Jenkins CI/CD pipelines and unit testing suites, increasing test coverage to **85%+** and enabling zero-downtime releases.
- Leveraged AI-assisted development platforms (e.g., GitHub Copilot) to accelerate code generation and cut bug remediation turnaround time by **~30%**.
- Performed log analysis and continuous monitoring to proactively remediate security vulnerabilities and ensure compliance with enterprise engineering standards.

Center for Innovation through Visualization and Simulation (Purdue University Northwest)

Research Associate (Temporary Hire)

February 2025 – September 2025

- **Integrated Virtual Blast Furnace (IVBF) System:** Designed a real-time data monitoring and optimization microservice using Python, SQL, and Docker/Kubernetes containerization; automated testing and continuous integration using Jenkins CI/CD pipelines.
- **Digital Health & VR Futures Application:** Engineered a psychology-based digital health software platform supporting youth trauma and mental health interventions; presented findings at the 5th International Single Session Therapies Symposium (SST5).
- **Hazard Recognition & AI Systems:** Developed and integrated a high-precision computer vision model (PyTorch/YOLO) into real-time operational workflows, achieving an 87% accuracy rate and driving a 30–50% improvement in safety outcome metrics.

Graduate Research Assistant

August 2023 – December 2024

- Engineered real-time simulation applications and educational tools using C# and Unity, implementing automated GitHub Actions CI/CD workflows for reliable automated testing and deployment.
- Managed server infrastructure, network configurations, and distributed hardware environments to ensure high system uptime and security compliance.

GULF-FLORA

Riyadh, KSA

Web Developer Intern.

August 2021 – December 2022

- Built, optimized, and maintained RESTful and GraphQL APIs connecting frontend interfaces with relational database backends, improving query speed and overall API response times.
- Participated in Agile sprint planning, code reviews, and cross-team collaboration to deliver robust software features on schedule.

EDUCATION

Purdue University Northwest

Indiana, USA

Master's in Computer Science

January 2023 – December 2024

Relevant Courses: Applied Statistics (R), Machine Learning (Python), Distributed Systems (Java), Algorithms, Software Design, AI Projects, Operating Systems, OOP (Java)