Muhammad Blal

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EDUCATION

Iowa State University

Bachelor of Science in Computer Science: GPA: 3.43/4.0

Ames, IA

Expected Graduation: May 2027

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, C/C++, C#, SQL, HTML, CSS, Dart, Swift

Frameworks: Angular, React.js, Next.js, Node/Express.js, MongoDB, Flask, Spring Boot, FastAPI, PostgreSQL Developer Tools: AWS, Azure, OpenAI, Postman, Git, Docker, Google Cloud Platform, REST APIs, Android Studio

Libraries: Pandas, Scikit-learn, Keras, NumPy, Tkinter, Matplotlib

EXPERIENCE

Software Engineer Intern

May 2025 – Aug 2025

J.B. Hunt Transport Services, Inc.

Lowell, AR

- Engineered and launched a net-new platform UI feature for the J.B. Hunt 360 personnel and driver panels using Angular, TypeScript, and large language models (LLMs), enhancing usability, engagement, and operational efficiency for 35,000+ daily users at a Fortune 300 enterprise.
- Improved backend microservices with Spring Boot, Quarkus, and Java through efficient data handling, unit testing, and queries in MongoDB and Elastic Search to support new front end feature.
- Employed Canary deployments in Kubernetes CI/CD yaml pipelines and back end modular service architecture, contributed to a projected operational savings of \$250,000 over the next 5 years.

Software Engineering Simulation (Forage Program)

Jun 2025 – Jul 2025

JPMorgan Chase

Remote

- Designed and deployed a **Kafka-based** transaction processing system in **Spring Boot**, improving transaction validation speed by **30%** and **ensuring 100%** data integrity in an H2 **SQL database**.
- Integrated an **external Incentives API** to dynamically apply rewards, optimizing real-time balance updates and enhancing transaction accuracy.

Web Application Developer

Aug 2024 – Mar 2025

XO Foods (Chester's)

Waterloo, IA

- Built a full-stack restaurant website using React.js, Node.js, and Express, resulting in a 35% increase in online orders and expanding customer reach across the Waterloo area.
- Implemented responsive UI components and optimized page performance, leading to a 50% improvement in mobile user engagement and reducing bounce rate by 20%.
- Integrated SEO strategies and Google Analytics tracking, enabling data-driven content updates that boosted monthly website traffic by 60%.

Projects

Bitcoin Price Predictor | Python, Scikit-learn, Pandas, Matplotlib, yFinance

Aug 2025 - Sep 2025

- Built a machine learning model with lag features and technical indicators, improving price prediction accuracy by 15% compared to baseline methods.
- Automated data via yFinance API and built iterative forecasts projecting Bitcoin trends into 2026, with outputs saved as CSV/PNG visualizations.

EasyCal | React, Node.js, Express, MongoDB, FastAPI, Python, Ollama

Feb 2025 – May 2025

- Built a full-stack nutrition and recipe planning web app used by **Iowa State University students**, featuring dynamic food search, recipe tracking, and restaurant listings.
- Integrated an AI-assisted recipe generator using Ollama LLM and FastAPI, enabling personalized meal recommendations and boosting user engagement by over 40%.
- Implemented secure developer login and full **CRUD operations** for recipes and restaurants, streamlining content management and reducing manual entry workload by **50**%.

LEADERSHIP

Computer Science and Software Engineering Club (CSE) | Member Pakistan Student Association | Member

September 2024 – Present

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