

ALI MOHSIN

ali.mohsin05@gmail.com | 571.233.5190 | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

George Mason University | Fairfax, VA

Aug 2023 – Dec 2026

B.S. Applied Computer Science, Minor in Data Science

- **GPA:** 3.6/4.0 (Dean's List)
- **Relevant Coursework:** (AP/DE Credits: 46), Data Structures, OO, (Python and Java), Low-Level Programming with C, Statistics, Linear Algebra, Formal Methods/Models, Software Engineering, Software Design
- **Fall 2025:**

EXPERIENCE

Hackathon Software Developer | George Mason University

Oct 2024 – Mar 2025

- Leading a team of 5 to develop and optimize the coding section for a large-scale hackathon, leveraging collaborative tools to ensure seamless execution and enhance participant experience.

AI/ML Data Science Intern | Ballogy | FiveRivers Technologies

May 2024 – Aug 2024

- Collaborated with a team using Agile methodologies to develop an AI-driven basketball training platform, delivering real-time insights to 100+ coaches and dozens of schools nationwide, enhancing performance tracking for 15,000+ athletes.
- Engineered a pose detection system utilizing YOLOv8 and MediaPipe, deployed on AWS EC2 for scalable processing, automating dataset annotation for 2 million frames, improving accuracy by 30% and scalability by 50%.
- Assisted in the development of a financial analysis tool, standardized metrics from 156 companies with NumPy and Pandas, conducted correlation analysis, and visualized insights with Matplotlib/Seaborn.
- Formulated a sophisticated image enhancement pipeline, leveraging AWS S3 for efficient dataset storage and integrating Pillow and Canny edge detection to detect contours, reducing false positives by ~94%.

Teaching Assistant | George Mason University

Jan 2024 – May 2024

- Led interactive learning sessions for 50+ students, reinforcing core Python programming concepts through one-on-one mentorship and workshops.

PROJECTS

BEIGHT Workout App | React Native, Python, Jupyter, OpenCV, MediaPipe, NumPy, PostgreSQL

- Spearheading the development of an AI-powered body-weight workout app utilizing computer vision to track posture and count reps in real time, aiming to benefit millions of equipment-free users at home.
- Developed a real-time push-up and squat tracker using OpenCV and MediaPipe to implement pose detection, achieving 95% accuracy in tracking key body landmarks and calculating joint angles to enhance workout precision.

Financial Sentiment Analysis | Llama 3.1, Streamlit

- Fine-tuned Llama 3.1 model to classify financial news by sentiment, optimizing for market prediction insights.
- Successfully deployed the model via Streamlit, creating an interactive web interface for real-time sentiment analysis of financial news.

PDF Semantic Search Engine | Python, LangChain, FAISS, SentenceTransformers

- Deployed a semantic search engine for PDF retrieval using LangChain for text chunking, SentenceTransformer for embeddings, and FAISS database for enabling fast text similarity searches across 1,000+ documents.

Blob Game | Java, Swing

- Engineered an interactive Java arcade game with a GUI, featuring keyboard controls, dynamic difficulty, real-time collision detection, visual feedback, and a win condition based on blob size.

SKILLS

Programming Languages: Python, Java, C, SQL, MATLAB, HTML/CSS, R, Dart, JavaScript, Kotlin

Frameworks/Libraries: Flutter, React Native, LangChain, OpenCV, Google MediaPipe, Ultralytics YOLOv8, Llama 3.1, FAISS, LLMParser, PyTorch, Pandas, NumPy, Seaborn, Pillow, Google Text Embedding API, Swing

Dev Tools: AWS (EC2, S3), Git, GitHub, Docker, Jupyter, PostgreSQL, Android Studio, Streamlit, Agile, AI/ML, VS Code, IntelliJ