Ali Mohsin

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# Education

## George Mason University | Fairfax, VA Expected Graduation: Dec. 2026

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

* **GPA:** 3.6/4.0 (Dean’s List)
* **Relevant Coursework:** Data Structures, OO, Python, Java, C/C++, Statistics, Linear Algebra, Formal Methods/Models, Software Engineering, Software Design, (AP/DE Credits: 46)
* **Fall 2025:** Databases, Algorithms, Systems Programming, Software Testing

# Experience

## AI/ML Software Developer Intern | Network Designs (NDi) May 2025 – Aug 2025

* Designed a proof-of-concept computer vision system for aerial vehicles using YOLOv8 and OpenCV, achieving 92% real-time accuracy in detecting and classifying aerial objects.
* Contributed to an enterprise iOS/Android app (Agile + Kanban), delivering an AI-powered HR assistant and real-time CMS for 500+ employees.
* Built a headless Strapi CMS (Strapi Cloud + PostgreSQL) with REST APIs, role-based access, Azure AD SSO, and Firebase Messaging, streamlining content pipelines and cutting overhead 60%.
* Designed a code modernization blueprint (FastAPI, LangChain, OpenAI, Qdrant, Tree-sitter) to automate user stories, unit tests, and microservice templates, reducing analysis time 80%.

## Data Science Intern | Ballogy.com | FiveRivers Technologies May 2024 – Aug 2024

* Supported development of an AI-driven basketball platform, delivering real-time insights to 100+ coaches and tracking 15,000 athletes nationwide.
* Built and deployed YOLOv8 + MediaPipe pose detection on AWS EC2, auto-annotating over 2 million frames, boosting accuracy 30% and scalability 50%.
* Developed a financial analysis tool for 156 companies with Pandas/NumPy for data wrangling and Matplotlib/Seaborn for data visualizations.
* Created an AWS S3-based image pipeline (Pillow, Canny edge detection) that reduced false positives 94%.

# Projects

## Street2Elite Football Academy Platform (In development) | Next.js, TypeScript, Supabase, Spline 3D

* Engineering a full-stack soccer academy platform with real-time booking system, and automated session management for 470+ monthly soccer players in England.
* Built responsive admin dashboard with calendar integration and payment processing, streamlining operations for coaches and parents.

## StartHub (In development) | Next.js, Node.js, MongoDB, Express

* Designing a modern collaboration platform where college students and early-stage founders can pitch ideas, discover projects, and build teams.

## BEIGHT Workout App (on pause) | React Native, Python, Jupyter, OpenCV, MediaPipe, NumPy, PostgreSQL

* Developed AI-powered fitness app with computer vision tracking, targeting millions of home workout users worldwide
* Achieved 95% accuracy in real-time pose detection using OpenCV/MediaPipe, potentially revolutionizing equipment-free fitness experiences

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

* Built a semantic PDF search engine using natural language processing (NLP) techniques by applying SentenceTransformer embeddings and FAISS vector search
* Produced fast and accurate semantic retrieval across 1,000+ documents using LangChain for text chunking.

# Skills

Programming Languages: JavaScript, Python, TypeScript, Java, SQL, Node.js, Kotlin, HTML/CSS, Dart, R, C

Frameworks & Cloud: React, React Native, Git, GitHub, Vercel, Docker, Expo, Tailwind, Vite, Flutter, LangChain, PyTorch, Strapi, Android Studio, Pandas, NumPy, OpenCV, Jupyter, Expo, Streamlit, Google MediaPipe, Ultralytics YOLOv8, LLMs, FAISS, Seaborn, Firebase, AWS, Azure