

Mohammed Husamuddin

Business Transformation with Software & AI

Proactive and results-oriented Computer Engineering student with a strong foundation in machine learning, data engineering, and software engineering. Experienced in developing innovative solutions, including scalable tools, predictive models, and automation systems that drive efficiency, process optimization and business transformation.

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Work Experience

AI Engineering Intern

Deriv Feb 2025 - Present

- Working on building Agentic AI tools for the internal teams. To solve problems and optimize existing procedures.

Software Engineering Intern

Brio Tech [View LoR](#) [Certificate](#) Jul 2024 - Aug 2024

- Developed a Cloud Pricing Calculator using **Streamlit**, Python, and **Azure API**.
- Built a sales lead email generation application, automating 80% of lead generation and boosting sales productivity by 40% with **LinkedIn API**, **GPT-4**, and Streamlit (converting codebase to React for production ready environments).
- Integrated Google Cloud Platform services, mastering cloud security, IAM policies, and programmatic authentication.

Full Stack Developer & Data Science Intern

PropReturns [View Certificate](#) Jun 2023 - Aug 2023

- Designed and implemented a comprehensive **ETL process** using **Python** and **regex**, creating a robust **data pipeline** for **web-scraped** information.
- Developed an **image processing** web app using **OpenCV**, **Streamlit**, and **Python**, achieving a **50% reduction** in **image preprocessing time** and enhancing workflow efficiency.
- Created reusable **UI component library**, enhancing developer productivity and improving system design.

Founders Office & Product Development

Styx(B2B SaaS) [View LoR](#) [View Prototype](#) Mar 2023 - Jan 2024

- Designed the **UI** and developed a security compliance dashboard **MVP**, increasing **valuation by 27%** and gaining stakeholders approval
- Pitched product to local and international investors & presented market analysis to stakeholders, contributing to securing **500,000** in funding, while developing strategies to improve market penetration.

Club Experience

Lead

Google Developer Groups [Letter](#), [Google](#) Sep 2023 - Sep 2024

- Expanded chapter to **largest campus community** (350+ members), **managing 26-person** team across 5 departments, implementing 3-tier structure, and overseeing **903+** student participation's and certifications.
- Developed and directed **4 internal and community applications/tools** and 40+ long-term assets including **automation scripts** and internal web apps, increasing website traffic by 73% and documenting processes through SoP initiatives [SoP website](#)

Head of Business & Marketing

BITS Motorsports [View Certificate](#) Mar 2022 - Jun 2023

- Developed BMS Dashboard, **digitizing all processes** and moving away from traditional systems, sponsorship tracking for team members, using **Next.js**, **React** and **Python**. [BMS Dashboard](#)
- Student Council, EMC Technical Head at BITS Pilani Dubai
- UN MCN Fellow, building open source applications for NGO's
- Startup Advisor for **E-cell IIT Bombay** & BITS Pilani Dubai

Extra Curricular Activities

- Blogging, Designing, Social Work, Story Telling, Sports (Cricket for School Team)
- Creating Content on Social Platforms with over **100,000+ impressions**

Skills

Core Competencies	Machine Learning, AI , Business Development, Software Development , Data Analysis, Databases, Cloud Computing, DevOps
Business & Finance	Economics, Accounting, Industry Research, Financial Analysis & Modelling
Technical Skills	
Languages	Python , Java, C++, Typescript, JavaScript, SQL, HTML, CSS
Frameworks	Matplotlib, Pandas, Numpy, Streamlit, Flask, Scikit-Learn , OpenCV , Flower(FL), ROSPy , OpenAI, Hugging Face, ZenML (ML Ops) , PyTorch
Technologies	NextJs, React, Node.js, MySQL, Firebase, Flutter , Vercel, Git, Google Cloud Platform, Azure, Figma, RESTful API, Docker, Excel , Prisma, Power BI , Tableau, Pinecone

Relevant Projects

Image Processing for Crack Detection using XFEM, Machine Learning & Deep Learning Techniques

Engineered **XFEM-based datasets** with diverse defect configurations and trained **VGG16 CNN models** using **transfer learning** and **supervised techniques** to construct crack paths, achieving high accuracy while **reducing computational costs** of simulations.

UniDash – Platform for university resources

Founded and developed **UniDash**, a student-centric platform using **Next.js**, **Typescript**, **Tailwind** and **Firestore**, consolidating campus resources into a web application that achieved an average of **2100+ daily active users**.

Integrated a **AI-powered** Question Prediction System leveraging **BLOOM-560M** (Hugging Face Transformers) with a memory-optimized inference pipeline in **PyTorch**, enabling **real-time academic content analysis**

Federated Learning Model for IoT Attack Classification

Designed a **federated learning** model using the flower framework, **pytorch** to classify 33 types of cyber attacks on **edge devices** with data privacy

Machine Learning Heart Disease Risk Predictor App

Developed an interactive heart disease prediction web app using Streamlit, Python, and **scikit-learn**, implementing a **KNN classifier** to assess disease risk from 13 key health parameters, delivering real-time personalized medical insights.

University Geolocation Attendance System

Engineered a geolocation-based university attendance system under the directive of the **Academic Dean at BITS Pilani Dubai**, utilizing Google Maps, **Geo Location**, Elevation API, React Native, **Kalman Filters** and **Web Sockets** to improve accuracy and reduce administrative workload.

Education

BITS Pilani, Dubai Campus | *B.E. Computer Science*

Coursework: DSA, Database Systems, Machine Learning, AI, Data Mining, Object Oriented Programming, Finance, Psychology