Mohammed Husamuddin
Business Transformation with Data for Digitalization

Analytical Computer Engineering student with expertise in technical solutions, process automation, and data-driven decision-making. Skilled in developing scalable tools and dashboards to enhance efficiency and provide actionable insights. Proficient in data analysis, software engineering, and visualization, with a proven ability to optimize processes and drive cost savings.

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Work Experience

Software Engineering Intern

Brio Tech View LoR ⤢ Certificate ⤢ — Jul 2024 - Aug 2024

- Developed a Cloud Pricing Calculator using **Azure API**, Python, and Streamlit.
- 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 architecture.

Founders Office & Business Strategy Analyst

Styx(B2B SaaS) View LoR ⤢ View Prototype ⤢ — Mar 2023 – Jan 2024

- Designed and developed a security compliance dashboard **MVP**, increasing **valuation by 27%** and gaining stakeholders approval.
- Analyzed **financial** and **operational metrics** to identify **cost-saving opportunities** and recommend **strategies for revenue growth.**
- Pitched product to local and international investors & presented **unit economics(CLV or LTV)** and 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, **optimizing operations** and streamlining overall functioning of GDG in the Dubai region through strategic initiatives and SoP documentation 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 and React.** 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, Content Creation, Sports(Cricket for School Team)
– Creating Content on Social Platforms with over **100,000+ impressions**

Skills

Core Competencies	Software Development, Business Development, Machine Learning, **Data Analysis**, Databases, Cloud Computing, DevOps
Business & Finance	Economics, Accounting, Market Analysis, Financial Modelling & Analysis, **Data Analysis & Presentation**

Technical Skills

Languages	**Python**, Java, C++, Typescript, JavaScript, SQL, HTML, CSS
Frameworks	**Matplotlib**, **Pandas**, Numpy, **Streamlit**, Flask, Scikit-Learn, OpenCV, Flower(Federated Learning), ROSpy, OpenAI, Hugging Face, **ZenML (ML Ops)**
Technologies	NextJs, React, Node.js, **MySQL**, Firebase, Vercel, Git, Google Cloud Platform, Azure, Figma, RESTful API, Docker, Prisma, **Power BI**, **Tableau**, **Excel**, Pinecone

Relevant Projects

UniDash — Platform for university resources ⤢

Founded and developed **UniDash**, a student-centric platform using **Next.js, Typescript, Tailwind and Firebase**, 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**

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.

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.

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.

Education

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

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