

# SYED SHAH HUSSAIN BADSHAH - [Software Engineer, GenAI, AI]

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## EDUCATION

### Bachelor of Science in Software Engineering

2021 - 2025

COMSATS University Islamabad (CUI), Abbottabad Campus - Pakistan | **CGPA : 3.33/4.00**

- Relevant Coursework: SRS, Web Development, AI, HCI, Software Design & Architecture (SDA), OS, DB, OOP etc.
- Selected as Tech Team Lead for Google Developer Groups – On Campus (GDGoC) at COMSATS Abbottabad, consistently led course projects and served as Class Representative (CR) for one semester.

## PROJECTS

### FYP – RCMS: Robust Car Modification Simulation System using AI

Python, YOLOv8, SAM, TensorFlow, OpenCV, Next.js, MongoDB

- Built a AI SaaS web app that enables users to detect, segment, and modify car parts to visualize custom car designs.
- Integrated fine tuned YOLOv8 for exterior parts detection and SAM for car part segmentation in an AI-powered image processing pipeline achieving 72% accuracy in car part detection using YOLOv8

### VizAI – Data Insights & Visualization Assistant

Python, LLM, Together.ai, plotly, matplotlib, Streamlit

- Designed and Developed Streamlit-based tool enabling users to upload datasets and generate insights, visualizations, and Python code using natural language queries.
- Integrated Together.ai for LLM-based query parsing and E2B sandbox for secure real-time code execution, processing queries with 90%+ success rate.

### Laptop Store – Web Technology Course (CSC336)

MERN Stack (MongoDB, Express.js, React, Node.js).

- Designed and developed a commerce platform for laptops shop as part of 4th-semester coursework.
- Implemented CRUD operations for three user roles: Buyer, Seller, and Admin.
- Integrated Stripe for payment processing & an inventory management system to track stock, orders, & transactions.

### FinAI - AI-Powered Financial Management Platform

Python, REST APIs, Llama3.3 70B, Snowflake, Streamlit, OCR, PyPDF2, Pillow, Pytesseract, Plotly, Numpy, Matplotlib, Seaborn

- Designed and developed an AI-driven financial management system to automate receipt processing, & wealth planning, built predictive analytics, savings projection, and market intelligence tools offering investment recommendations, risk assessment, and portfolio optimization using fundamental analysis.
- Achieved 95% accuracy in receipt categorization and 60% workload reduction by integrating LLM-powered document processing and wealth building automation reducing financial planning time by 70%

## VOLUNTEER EXPERIENCE

### TECH TEAMS LEAD - Google Developer Group on Campus (GDGoC), CUI Abbottabad

Sep 2024 - Aug 2025

- Moderated four parallel bootcamps (Web Dev, Flutter, Game Dev, Python & Basic ML) across 15+ online sessions.
- Collaborated with cross-functional team, organized and led technical workshops, and speaker events for students.
- Invited as a speaker in the webinar “Hackathon 101” to share my experiences with aspiring student developers.

### LINKEDIN MANAGER - Pakistan Development Movement (PDM)

Nov 2023 - June 2025

- Responsible for managing the organization's LinkedIn account, including posting updates and session details.
- Actively engaged with the audience by responding to queries, contributed to the overall growth and impact of PDM.

## ACHIEVEMENTS & AWARDS

- **2024 | NASA HONORABLE MENTION** - Presented a project idea “Climate Refugees” in [NASA Space Apps Challenge 2024](#), Achieved Top 0.5% globally out of 9,000+ projects and received the NASA Honorable Mention.
- **1st Place at Future the Hack: AI & Open Source Hackathon** - Built an AI-powered data visualization tool VizAI that converts raw datasets into interactive insights & visualizations using natural language queries.
- Received the **Best Proctor Award** in school, **Monitor Award** in college, and **Appreciation & Leadership Award** from GDGoC COMSATS Abbottabad.
- **2<sup>nd</sup> Runner up FYP Competition Spring 2025- CUI Abbottabad** | **2x CS50x Puzzle Day Winner - Harvard University**

## CERTIFICATIONS

Aspire Leaders Program – 2024 Cohort I - Aspire Institute powered by Harvard Business School

Feb 2025

Generative AI Engineering with LLMs – IBM & Coursera

June 2025

LLM Course - Hugging Face

July 2025

Generative AI with LangChain - CampusX

in progress...

## SKILLS

- **Programming & Development:** JavaScript (ES6+), Python, FastAPI, MERN Stack
- **AI/ML:** LLMs APIs, LangChain, RAG, Hugging Face, Together.ai, CrewAI, Agno, OpenCV, Numpy, Matplotlib, Pandas, Git, Github
- **Hard Skills:** Leadership & Teamwork, Problem-Solving, Adaptability & Learning, Project Management