Abhinav Kumar

Portfolio | GitHub | LinkedIn

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Education

- **B.M.S College of Engineering** — Bangalore, Karnataka
  Bachelor of Engineering (CSE); GPA: 8.76/10 — Dec. 2021 – June. 2025

Technical Skills

Languages: Python, C/C++, MySQL, JavaScript, HTML/CSS, Linux.
Frameworks: Reactjs, MongoDB, Streamlit.
Developer Tools: Git, GitHub, Docker, Jenkins, Jira.
Cloud Service: Google Cloud Platform, AWS.
Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, Seaborn.

Experience

- **Siemens Digital Industries Software (Formerly Altair, Inc.)** — Bangalore, Karnataka [On-site]
  Quality Assurance Intern — Jan 2025 – Present
  - Performed **exploratory, sanity, and regression testing** on Altair Cost AI™ (FBoM-based) and using Jira for defect tracking.
  - Automated test cases in **Katalon Studio** and ran manual tests under Test plans via **Jira Xray**.

- **Mifos Initiative** — Seattle, WA [Remote]
  Google Summer of Code (GSoC) '25 Mentor — Mar 2025 – Present
  - Mentoring **2** projects under **Mifos-Gazelle**, a DPI-as-a-Service deployable for MifosX/Fineract, Payment Hub EE, and Mojaloop.

- **Mifos Initiative** — Seattle, WA [Remote]
  Software Intern — June 2024 – Sep 2024
  - Updated Mifos Gazelle to deploy latest versions of **Mojaloop, Fineract, Mifos X Web App, and Payment Hub EE**.
  - Reduced Gazelle memory usage from **16GB to 8GB** by consolidating **MySQL, Kafka charts** and optimizing deployment parameters.

- **Samsung R&D Institute India** — Bangalore, Karnataka [Remote]
  Project Intern — Feb 2024 – Oct 2024
  - Proposed and implemented the **CoCT** (Chain-of-Conversational-Thoughts) framework for contextual action execution reasoning in **LLM-based voice assistants**.
  - **Fine-tuned** conversational language models and integrated **RAG** for **task decomposition** across diverse query types (**Conversational, Distracting, Situational**).

Projects

- **TaskFlow - Django, Docker, AWS, Jenkins**: Deployed a Django app in Docker with CI/CD via Jenkins on AWS EC2 for automated container-based delivery.
- **LangToSQL - Python, Streamlit, Gemini Pro, SQLite**: Built a Streamlit app using Gemini Pro to convert natural language into SQL queries and retrieve live database results.

Achievements

- Secured Top 5 position in 36-hour Data Science Hackathon organized by **Altair** (2024).
- Achieved Global Rank 281 in TCS CodeVita Round II organized by **TCS** (2024).
- Contributed to PolyPhy under **CROSS – UC Santa Cruz** as an open source developer (2023).
- Selected among **10k+** contributors for **Code for GovTech** program with 1,00,000 stipend (2024).
- Building **Mapi.ai** – Converted text to diagrams using **Mermaid.js and AI**.