

AAKASH MALLIK

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EDUCATION

National Institute of Technology Karnataka, Surathkal
Bachelor of Technology in Electrical and Electronics Engineering
Minor in Computer Science Engineering

Dec 2021 - Apr 2025
CGPA : 8.07

WORK EXPERIENCE

Wells Fargo - Software Developer (ReactJs, Redux, MCPs)

Aug 2025 - Present

- Working with **ReactJs and Redux** on the frontend of the **New Issuance Trading platform**, which supports all the **Debt Capital Market transactions** of the bank. I have contributed to **10+ PRs in various releases in production**.
- Building **agentic workflows** and **MCPs** to enhance **business-context understanding** in coding assistants, improving **developer efficiency** and **AI-enablement in my team**; developed an **AI-assisted PR review system** reducing review time by **about 30%**. Ongoing migration from **WAF & Selenium** to **Playwright** by **efficient context engineering**.

Attenomics Lab - ML Engineer (Python, PyTorch)

Apr 2025 - Jun 2025

- Developed a **DistillBert** model with **triplet loss** pipeline to semantically score high volume scraped Tweets. Improved performance by **almost 10%** from baseline and **reduced operational cost by almost 200USD monthly**. Built a **hybrid RAG** system with multi-tiered retrieval strategy for a **Reasoning Brand Marketing & Insights chatbot**.

NeoSapien - AI Developer (Python, Langchain, Backend Systems, VectorDB)

Aug 2024 - Mar 2025

- Implemented the **Second Brain** pipeline using paradigms such as **RAG, Self-discover, Chain-of-Thought** along with evaluating the prompting, chunking & embedding strategy for the **QA Chatbot**. Deployed retrieval and storage back-end systems and wrote the **API calls** to **Firestore & Qdrant** database. Reduced response latency of the pipeline by **46.5%**.

Wells Fargo - SDE Intern (Python, PyTorch, Power Apps, DataVerse, SharePoint)

May 2024 - Jul 2024

- Led a 3-member team in an **Agile environment** within the Process Transformation and Intelligent Automation group, delivering iterative automation solutions by replacing manual workflows with **Robotic Process Automation**.
- Developed a full-stack application to create a centralized platform for **algorithmic skill-based Jira task-employee matching**, serving as a consolidated dashboard for managers and their team members. It automated the previously manual workflow and **reduced task allotment time** by almost **98%**, mitigating the pain point of around **1200 employees**.

PROJECTS

KathaAI (Next.js, React.js, FastAPI, OpenAI GPT-4, Gemini, SarvamAI API)

Apr 2025

- Designed an **iterative context-extension** pipeline using **multi-step chain-of-thought reasoning**, increasing effective context length while preserving author intent, enabling coherent generation of long-form novels (**100+ pages**).
- Built a platform supporting chapter-by-chapter story development, audio conversion, AI-generated book covers, and multi-modal exports; secured **1st Runner-Up** out of **150+ teams** at the KukuFm National Project K Hackathon.

The Great Bangalore Hackathon 2025 (Next.js, React.js, TypeScript, MapBox API, Gemini, Tailwind CSS)

Mar 2025

- Proposed and implemented a novel ride classification system with **4 tiers** (Premium, Express, Standard, Economy) and **dynamic pricing** based on demand-supply matrix, time of day, driver rating, and dead mileage compensation.
- Deployed a **masked autoencoder** model to predict customer requests and guide drivers to hotspots via an interactive map; integrated multilingual AI support via Sarvam API to enhance accessibility. **Top 5 finalist** out of 50+ teams.

SKILLS

Languages C++, Python, Golang, JavaScript

Tools/Frameworks PyTorch, Langchain, LangGraph, ReactJs, Tailwind CSS, MongoDB, SQL, Git, GitHub, PostMan

HONORS AND AWARDS

- 0G Labs Grant recipient (2x)** - Received grants worth $\approx 60k$ INR to develop a Vector DB.
- SUI Overflow 2025 - Runner Up** in the Programmable Storage track **globally**. Built a decentralised Graph DB.
- KVPY (Kishore Vaigyanik Protsahan Yojana) SX 2021 - All India Rank 1373** out of 0.6 Million Candidates.
- Class X Indian Council of Secondary Education (ICSE) 2019 - All India Rank 5** with 98.88% aggregate score.
- ASSET Aptitude Exam 2016 - All India Rank 1.**