

# Ashutosh Mahapatra

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## EDUCATION

### Siksha 'O' Anusandhan University (ITER)

*Bachelor of Technology in Computer Science Engineering*

Nov. 2021 – June 2025

*CGPA: 9.85*

## EXPERIENCE

### Member of Technical Staff

*Aveti Learning Pvt. Ltd.*

March 2025 - Present

*Bhubaneswar, India*

- Designed and implemented the backend for a teachers' learning app using FastAPI and PostgreSQL, deployed on Kubernetes for scalability and fault tolerance.
- Developed and optimized microservices for the platform serving 2700+ schools and 200K+ students, leveraging AWS, Docker, and CI/CD pipelines to ensure high availability and performance.

### Software Engineer Intern

*Samsung R&D Institute*

June 2024 – Dec 2024

*Bangalore, India*

- Developed a static power analysis tool to identify performance bottlenecks and reduce power inefficiencies by 10%, leveraging in-house GenAI for optimization suggestions.
- Engineered an industry-first ground truth generation framework for ARM, achieving 91% accuracy in per-instruction energy measurement, with support for both hardware and software modes.
- Automated the build process for C/C++ using CMake, reducing compilation time by 70%.
- Created an automation suite using Python and Java for capturing and analyzing per-instruction power consumption, reducing ground truth creation time by 90%.

### Software Developer Intern

*Aveti Learning Pvt. Ltd.*

Sep. 2022 - May 2024

*Bhubaneswar, India*

- Developed a cross-platform AI tutor bot for mobile and web using Flutter, leveraging Langchain and OpenAI GPT-4 as a backend service.
- Integrated vector search, and Retrieval-Augmented Generation (RAG) for question answering (QA) in chatbot
- Optimized CI/CD deployment pipelines using GitHub Actions, reducing deployment time by 50%.

## PROJECTS

### Passlock & PasslockDesktop | *Python, Firebase, Kivy, PyInstaller, Github Actions*

Jan. 2022 – June 2022

- Created a cross-platform password manager for mobile and desktop (Android, Linux, Windows, MacOS).
- Leveraged Firebase real-time database for efficient CRUD operations.
- Implemented AES-256 encryption to ensure robust password security and decryption.
- Designed real-time password synchronization system across devices with 0ms latency.
- Optimized app load time by 30% implementing lazy loading technique.

## SKILLS

**Languages:** Python, Java, C, C++, Dart, Assembly, LaTeX, Golang

**Frameworks:** Flutter, FastAPI, Flask, Kivy, Langchain, PyInstaller, NumPy, Pandas

**Tools and OS:** Linux, UNIX shell, Bash, Git, SSH, Github Actions, Nmap, Wireshark, Jupyter Notebook

**Cloud Platform & Containerization:** Google Cloud Platform, Amazon Web Services, Kubernetes, Docker

**Databases:** Oracle DB, PostgreSQL, MySQL

## ACHIEVEMENTS

Finalist in JP Morgan Chase **Code For Good**

Secured **4th** rank in Capture The Flag contest conducted by NIT Rourkela

Rated 1762 (Max) in [Codechef](#)

Rated 1713 in [Leetcode](#)

Rated 1232 (Max) Pupil in [Codeforces](#)