Anubhab Patnaik

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EDUCATION

New York University   New York City, US
Master of Science in Computer Engineering   *August 2024 — (Expected) December 2025*

EXPERIENCE

DatingAI   *(Remote)*, NYC, US
Software Engineer   *July 2024 — Sept 2024*
- Led the revamp of the infrastructure in NodeJs and NextJs, coordinating efforts across dev and product teams to reduce network load and improve API throttling by 15%, limiting API exhaustion and improving the performance of the engine.
- Conducted surveys, market research, solved customer issues, and built the Telegram and Discord bots that mimicked the entire application enabling multi-platform access and increasing the total active users by 50%.

RadiusAI   Bengaluru, IN
Software Engineer - ⌂   *Jan 2024 — July 2024*
- Built a multi-threaded, asynchronous health monitoring service using Rust and Kafka to handle 5000 scraping requests every 10 seconds, optimizing and porting the alert module from Python to Rust to improve performance.
- Automated fault-tolerant, consistent DB write operations by different teams using lambda functions and Prefect.
- Developed a native GUI app in Rust to highlight unknown objects present during checkout in LCD counter-top POS.
- Rewrote the existing Python Shopassist cart simulator codebase in Rust, updating the code to run asynchronous operations in parallel threads, improving performance by 10x and reducing bottleneck issues.
- Created a data analytics dashboard app using Gradio to display annotations, reducing inaccuracies by over 30%.

StackIt (Superjoin)   Bengaluru, IN
Founding Engineer   *June 2023 — Dec 2023*
- Integrated Chargebee, Hubspot, and Google Ads, increasing user acquisition by 4x. Engineered an advanced custom scheduler and logger in NodeJs and Python to store user data periodically, enhancing the performance of the AI engine.
- Created the Data-Preview component using React to enhance data visualization capabilities, reducing import errors by more than 15%. Worked on building robust filters, joins, and v-lookups, increasing data processing efficiency.
- Engineered sustainable RAG pipelines using Python, LangChain, and LlamaIndex to convert text to SQL and NoSQL queries, reducing user churn by more than 50% and increasing user retention.

Squbix Digital   Bhubaneswar, IN
Software Developer - ⌂   *June 2022 — Dec 2022*
- Worked on the back-end infrastructure using NodeJs, configuring optional parameters to switch between blockchains. Ported the JavaScript SDK to TypeScript, and re-developed the legacy wallet app, solving more than 80% of user-centric errors. Refactored mobile apps with improved UI and implemented offline storage and push notifications in the monitoring app. Updated the ID pallet using Rust and Substrate in the Polkadot blockchain, and added unit tests.

TECHNICAL SKILLS

Programming Languages   C/C++, Python, JavaScript/TypeScript, Rust, || Go, PHP, SQL
Libraries/ Frameworks   MERN, React Native, || Np, Pandas, SkLearn, Django, Flask, Langchain, Llamaindex, FastAPI
Developer Tools & Platforms   Git, Bash, GitHub, Docker, AWS, GCP, Firebase, Lighthouse, Analytics, Kafka, Kubernetes

PROJECTS

LIND - Open Source Contribution - 🔗   *Rust, WASM*
An isolated single-process sandbox to safely execute programs and control resource usage to avoid cascading system failures

Yatch - 🔗   *C++*
A five-stage, hazard & memory-safe pipelined 32-bit RISC-V machine code interpreter with a built-in RISCV bin **decoder**.

DOUGH - 🔗   *Rust, Bash*
A CLI tool to present markdown files as slides/ presentation in the terminal, with custom syntax and code highlighting.

BEE - 🔗   *Python, BitTorrent*
A custom BitTorrent client to download movies with an item-based collaborative **movie recommendation system** based on user ratings and the no. of ratings & a **movie rating prediction system** to classify reviews with a 95% accuracy.

RESOC - 🔗   *React, Firebase*
A FOSS college platform for academic resources with tasks, community chat, and contributions with 200 monthly active users

WEBCHAT - 🔗   *GunJS, Svelte, Rust, Firebase*
A decentralized chat app enabling low-latency, secure, and ephemeral messaging service.

VOLUNTEER EXPERIENCE

Member, (GDSC) Google Developer Student club, New York University, Tandon. 2024—2025
Member Secure Systems Lab, New York University, SSL, NYU Tandon. 2024—2025
Joint secretary 2021—2022 & Chairperson 2022—23 of the IEEE Students' Chapter, Silicon Institute of Technology.