# Anubhab Patnaik

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## EDUCATION

**New York University**                                                                                              New York City, US
*Master of Science in Computer Engineering*                                                        *August 2024 — Present*

## EXPERIENCE

**DatingAI**                                                                                                                    New York, US
*Founding Engineer*                                                                                                 *July 2024 - Present*
- Revamping the existing infrastructure in NodeJs and NextJs to reduce network load and effectively allow the usage of API keys to limit exhaustion. Improving the efficiency of the AI engine.
- Built the Telegram-Bot that mimics the entire application on Telegram enabling multi-platform application access.

**RadiusAI**                                                                                                                  Bengaluru, IN
*Software Engineer - *                                                                                            *Jan 2024 - July 2024*
- Built a multi-threaded, asynchronous health monitoring service using Rust, and Kafka to handle scraping requests every 10 secs. Optimized and ported the alert mod from Python to Rust to improve performance
- Automated fault tolerant, consistent DB write operations by different teams using lambda functions and Prefect.
- Built a native GUI app in Rust; to highlight unknown objects present during checkout in LCD counter-top POS.
- Ported the existing python shopassist cart simulator codebase to Rust. Updated the code to run asynchronous operations in parallel threads to improve performance and reduce bottleneck issues by more than 50%.
- Created a data analytics dashboard app using Gradio to display annotations statistics reducing failures and inaccuracies by over 70-75%.

**StackIt (Superjoin)**                                                                                              Bengaluru, IN
*Founding Engineer*                                                                                              *June 2023 - Dec 2023*
- Integrated Chargebee, Hubspot, and Google Ads. Built an advanced custom scheduling and logging service using React, Node, and Python to store user data periodically and enhance the performance of the AI engine.
- Created the Data-Preview component using React enhancing data viz. capabilities, which led to a 30% reduction in import errors. Implemented robust filters, joins, and v-lookups, increasing data processing efficiency.
- Built sustainable RAG pipelines using LangChain and LlamaIndex to convert text to SQL & no SQL queries, reducing more than 50% user churn, and leading to a 20% increase in user retention.

**Squbix Digital**                                                                                                      Bhubaneswar, IN
*Software Developer - *                                                                                          *June 2022 - Dec 2022*
- Launched the back-end infrastructure using NodeJs. Configured optional parameters to switch between different blockchains. Ported the JS SDK to Typescript. Developed a Chrome extension for wallet transactions. Refactored mobile applications with better UI, implemented offline storage, push notifications, and created an ERP app
- Modified the existing DID pallet using Rust & Substrate to store ID information in the blockchain with additional unit tests. Collaborated on the wallet transfer PWA to cater to the need of existing users on the older blockchain.

## TECHNICAL SKILLS

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

## PROJECTS

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

**QTREE** - 🔗                                                                                                *JavaScript, Canvas, HTML*
An image compression & decompression algorithm using Quadtrees by recursively subdividing it into four quadrants.

**BEE** - 🔗                                                                                        *Pandas, Sklearn, NLP, LP, 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 an 85% accuracy.

**RESOC** - 🔗                                                                            *React, Bootstrap, Firebase, Cloud Firestore*
A free and open social platform for accessing free academic resources with task management, a chat section, and an open contributions page with a growing user base of 2000 & more than 4000 reads and 200 writes

**WEBCHAT** - 🔗                                                            *GunJS, Svelte, Rust, Tokio, Substrate, React, Firebase, gh-actions*
A decentralized chat app, written in Rust & Svelte, enabling real-time messaging for 10,000 concurrent users.

## VOLUNTEER EXPERIENCE

Established and led cbrtl, a FOSS platform; increased user base, and facilitated 11+ innovative projects. 2022
Co-founder & Joint Secretary, SWITCH, the first official coding club of the college. 2021
Chairperson - 2022-23 of the prestigious IEEE Students' Chapter, Silicon Institute of Technology.