PRANAV DANI

EDUCATION

SUNY – Stony Brook University

May 2025

Master of Science in Computer Science

New York, USA

- Courses: Distributed Systems, Operating Systems, Computer Architecture, Theory of Databases, System Security
- Experience: Teaching Assistant (CSE 316) Fundamentals of Software Development

University of Mumbai - Thadomal Shahani Engineering College

May 2023

Bachelor of Engineering in Information Technology

Mumbai, India

• Courses: Operating Systems, Database Management, Data Structure and Analysis, Computer Network And Network Design, Network Security, Computer Organization and Architecture, Data Mining and Business Intelligence

SKILLS

Languages and Frameworks: C, C++, Java, Python, React.js, Node.js (Express.js), Flask, HTML, CSS, JS **Databases and Tools**: MySQL, PostgreSQL, Hadoop, Spark, GitHub, Firebase, Heroku, Git, Figma, GitHub Actions **EXPERIENCE**

Suven Consultants | *Software Intern (Remote)*

Jun 2021 - Aug 2021

- Contributed to two Open Source Java projects Home Inventory and Loan Management tool.
- Implemented the concept of Printable for printing the results generated by the application in PDF format using Java AWT and Graphics Library.
- Used SQLite3, JavaFX, and Java Swing components.

PROJECTS

Fault Tolerant Sharded Key-Value Store With Transactions using Raft | C++ August 2023 – December 2023

- Implemented a persistent linearizable key-value store with Raft for leader election and data replication with log compaction using Snapshots.
- Engineered Sharding using consistent hashing and automated partition rebalancing during node joins/departures.
- Implemented a versioned key-value store that supports cross-shard Transactions using 2 Phase Locking and 2 Phase Commit with Optimistic Concurrency Control.

ShareSpace | React.js, Tailwind, Firebase, Figma, Excalidraw | GitHub

Feb 2023

- Created a web app to find roommates that uses Firebase as the backend and React.js as the front end.
- The design was implemented using Tailwind, and React was used to filter rooms according to user profiles, groups, and personal preferences.

Short-Terms | *NLP*, *HTML*, *CSS*, *JS*, *Python*, *FastAPI*, *Beautiful Soup* | GitHub

Jan 2022 - Apr 2022

- Architected a browser extension (Manifest version 3.0) for summarizing website content with a single click using Beautiful Soup to parse the page and FastAPI to take requests from the extension.
- Uses NLP through Spacy to optimize the text without losing important meaning.

Maa-Sampati Marble and Granites | React.js, CSS, TypeScript, Firebase, Flutter | GitHub

Jul 2021 - Oct 2021

- Designed an easy-to-use E-commerce platform for creating Granites and Marble quotations using React.js.
- It uses REST APIs in the web app to contact Firebase for storing orders

Expense Tracker | Flask, PostgreSQL, Heroku, HTML, CSS, JS | GitHub

Apr 2021 – Jun 2021

- Designed and built a web app for recording and managing personal expenses with support for creating bulk expenses and exporting user data in CSV and Excel formats using Flask and PostgreSQL and hosted on Heroku.
- Provides the functionality to create personalized budgets based on multiple categories.

PUBLICATIONS

BackGen - Backend Generator | ICT4SD | Springer

August 2023

- A feature-rich software tool that automates the process of writing backend code for web applications.
- Creates a structure for data models and RESTful API endpoints, and generates executable code for the same in Golang.
- Generates approximately 48% of the code. (Depends on the use case.)

EXTRACURRICULAR ACTIVITY

Our Tech Community (OTC) | ourtech.community | Admin

May 2022 - present

- A Tech-loving open-to-all community with 400+ current members.
- Hosted 200+ hours of weekly OTC CatchUp sessions since May 2022 involving technical discussions, project showcases, and talks.
- Organized two in-person OTC MeetUp event with 60+ attendees.

Google Developer Student Clubs TSEC | Core Team Member

Aug 2021 – Jul 2022

• Involved with organizing and planning multiple technical events and maintaining a community with over 500 students.

ISTE-TSEC | Senior Committee Member

Jul 2021 – Jun 2022

- Organized three major events with multiple technical events.
- Conducted coding challenges, workshops, and competitive coding contests for students.