

ANANNYA PATRA

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EDUCATION

University of Southern California, Los Angeles
Masters of Science in Computer Science

Expected: May 2025
GPA- 3.83

BMS College of Engineering, Bangalore
Bachelor of Engineering in Information Science

June 2021
GPA- 3.87

TECHNICAL SKILLS

Programming languages: Java, C# .NET, Python, GoLang

Backend/Cloud technologies: SpringBoot, Flask, ActiveMQ, REST APIs, Hibernate JPA, Object Oriented Design, Jmeter, Data Structures and Algorithms, Google Cloud Platform, ElasticSearch

Database: MySQL, Oracle DB, PostgreSQL, SQLite, MongoDB

Web technologies: Angular, React, HTML, CSS, JavaScript, Bootstrap, jQuery, Node, HTTP

Other tools: Git, Linux, Android Application Development (Java), Agile Methodology, CI/CD pipeline

PROFESSIONAL EXPERIENCE

Bangalore, India

Athenahealth- Software Development Engineer

August 2021–July 2023

- Designed **concurrent, scalable** features for the Ambulatory Care Management System module, contributing to **improved** patient care, pharmacy and provider communication by **20%**
- Formulated **REST APIs** with response time of **~85ms** to send prescriptions to pharmacies, display prescription statuses, and monitor pharmacy responses, improving medication tracking by physicians by **90%**
- Implemented **Azure** telemetry logging for 3 services and crafted **Stored Procedures** to implement data purging mechanisms, resulting in optimized **database storage by 6%** and revamped system maintenance by **10%**
- Created and **optimized database schemas**, enhancing data retrieval performance with the addition of **indexes**, resulting in query execution times for CRUD operations as **5 ms** for **~600,000** records
- Played a pivotal role in **fixing transactional annotation** in 16 services, enabling proper database entry and error logging in the event of errors and negative scenarios, fixing rollback errors and ensuring **100% ACID property maintenance**

Athenahealth- Software Intern

January 2021–July 2021

- Led implementation of **revamping hashing** logic for mapping prescriptions and medications correctly, boosting medication accuracy and patient safety for **100%** of customers
- Upgraded** front-end Angular components of Northstar project from **V7 to V10**, decreasing security vulnerability by **25%**

Bounce Scooter Share- Backend Intern

August 2020–October 2020

- Formulated Rest APIs implementing **Geolocation API** and Breadth First Search algorithm for **real-time scooter location** tracking to retrieve the location of the nearest available scooter, boosting **user convenience by 78%**
- Developed and launched an inventory management feature, tracking repair agents and monthly payments, ensuring flawless upkeep of scooters and achieving a **100% maintenance rate**
- Acquired average hit rate for **Dock-less Scooter model at 10,000 hits/s** and scaled system to handle **300,000 users/day**

ACADEMIC PROJECTS

<https://github.com/anannya03>

[Ideate](#)

June 2024- Present

Spearheaded a **Django** application providing a web platform for users to explore and share inspirational ideas across 10+ categories, resulting in a 25% growth in unique content submissions

[StockStream](#)

March 2024


Created a robust **MEAN** stack web application, hosted via **GCP**, devised for stock trading and portfolio management, featuring real time updates on stock prices and company's financial data, and current news, enhancing 60% user experience

[Rejuvenate](#)

November 2020

Designed an **Android** application with **SQLite** DB that provides an online platform for users to buy memberships in desired partner gyms, book group classes based on availability, follow fitness routine, and track nutrition intake

ACHIEVEMENTS/LEADERSHIP

- Published three** software engineering research **publications** at IEEE conferences.  [PublishedPapers.pdf](#)
- Secured **70th rank** in **IEEE XTREME** out of **6000** participating teams worldwide
- Orchestrated innovative programs and events as **Executive Board Member of USC ACM** since January 2024, driving 30% growth in active participation and enabling collaborative learning experiences for 200+ students
- Attended 20+ events as a member of **Society of Women Engineers**, participant in WE23