

ANANNYA PATRA

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SUMMARY

A software developer with over 2 years of experience building scalable backend systems and designing efficient software solutions. With expertise in Full stack technologies, I am passionate about driving innovative solutions to unravel complex business challenges.

EDUCATION

University of Southern California, Los Angeles

Expected: May 2025

Masters of Science in Computer Science

GPA- 3.83

Relevant Coursework: Algorithms, Database Systems, Web Technologies, NLP, Information Retrieval, Machine Learning

- Orchestrated events as **Executive Board Member of USC ACM**, enabling collaborative learning experiences for 200+ students.

BMS College of Engineering, Bangalore

August 2017- June 2021

Bachelor of Engineering in Information Science

GPA- 3.87

- Published three** research **publications** at IEEE conferences under division of Machine Learning, IOT and Green Computing.
- Secured **70th rank** in **IEEE XTREME** (24 hour hackathon) out of **6000** participating teams worldwide.

TECHNICAL SKILLS

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

Frameworks/Tools: Spring Boot, Flask, REST API, Hibernate JPA, Angular, React, NextJS, Kafka, JMeter, GraphQL, NodeJS, Git

Cloud/ML: AWS, Google Cloud Platform, CI/CD, Redis, Docker, Agile, Neural Network, Tensorflow, Machine Learning, NLP

Database: SQL, Oracle DB, PostgreSQL, MongoDB

Web technologies: HTML, CSS, Tailwind CSS, Bootstrap, ES6, jQuery, HTTP, Figma

PROFESSIONAL EXPERIENCE

HeadStarter AI- Software Engineering Fellow, USA

July 2024–Present

- Developed **AI-driven tools**, including a **Pantry Tracker**, AI Chatbot, Flashcard Generator, and a **RateMyProfessor** Support Agent, enhancing user efficiency and satisfaction.
- Participated in a series of mock interviews and industry lectures led by seasoned professionals, gaining deep insights into best practices and methodologies for software development in high-impact tech environments.

Athenahealth- Software Development Engineer, India

August 2021–July 2023

- Developed and optimized cloud-based microservices, creating over **30 Java REST APIs** for the Ambulatory Care Management System module, contributing to improved patient care, pharmacy and provider communication by **20%**.
- Formulated scalable, concurrent REST APIs with response times around **85ms**, reducing the time physicians spent coordinating with pharmacies from 15 minutes/patient to **3 minutes**, significantly enhancing efficiency of medication tracking and patient care.
- Enhanced system performance by **17%** by implementing Azure telemetry logging and optimizing database schemas, leading to faster data retrieval and improved reliability.
- 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**.
- Collaborated with cross-functional teams in India and US to drive key initiatives, like fixing critical transactional annotations for **16** services, ensuring ACID compliance, enhancing database performance, maintaining a **100%** success rate in critical operations.

Athenahealth- Software Intern, India

January 2021–July 2021

- Revamped hashing** logic for prescriptions-medications mapping, ensuring **100% accuracy** and bolstering patient safety.
- Designed the **user interface** of Allergy module along with product design team and used Angular to build the components.
- Upgraded** front-end Angular components of Northstar project from **V7 to V10**, decreasing security vulnerability by **25%**.

Bounce Scooter Share- Backend Intern, India

August 2020–October 2020

- Formulated scalable 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%** and system scalability.
- 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**.

PROJECTS

NexusAI

July 2024

A smarter, more intelligent chatbot designed to elevate your thinking! Powered by the **OpenAI API**, **Langchain**, and **Pinecone** (RAG), Nexus is a **MERN** stack web application, designed to be your go-to companion for solving doubts and discovering new insights.

StockStream

March 2024

Created a **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 with **Highcharts** graph, and current news, enhancing 60% user experience.