

Gaurav Ghati

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EDUCATION

University of California, Irvine

Sep 2023 – Dec 2024 (Expected)

Master of Computer Science, **GPA:** 3.9/4

Irvine, California

Courses: Advance Operating Systems, Advance Data Structures, Machine Learning, Databases

Pune Institute of Computer Technology

May 2018 – Jun 2022

Bachelor of Engineering in Information Technology (Honors in Data Science), **GPA:** 9.21/10

Pune, India

Courses: Algorithms, Data Structures, Database, Object-Oriented Programming, Computer Networks, Operating Systems, Compilers, Computer Architecture, Distributed Computing Systems, Cloud Computing

TECHNICAL SKILLS

Skills: C++, Java, JavaScript, Python, Git, Linux, Docker, SpringBoot, Django, NodeJS, ReactJS, MySQL, MongoDB

AWS Services: EC2, Lambda, CloudFormation, Virtual Private Cloud, EventBridge, Redshift, S3, DynamoDB, RDS

Domain: Full Stack Web Development, Microservices, Machine Learning, NLP, OS Level Programming (C/C++)

Certifications: [SAFe 5 Practitioner](#), [Java Programming](#), [NLP in TensorFlow](#), [Sequence Models](#)

EXPERIENCE

Amazon Web Services, Redshift Team

Jun 2024 – Sep 2024

Software Development Engineer Intern

East Palo Alto, CA

- Developed a Redshift Self Usage Dashboard to display **active** and **idle** Redshift clusters cost usage for all internal Redshift teams, saving approx **\$650,000/month** (only in us-east-1 region) of operational expenditure costs to the organization.
- Utilized **AWS Lambda**, **CloudFormation**, and **DynamoDB** to create a scalable, serverless architecture for multi-region deployments and efficient data storage.
- Optimized Lambda execution time with **parallel processing** of **18,000+** clusters; Implemented **caching** to keep API calls under throttling limit; Managed cross-account access with secured and limited permissions using **IAM roles**.

Bank of New York Mellon

Jul 2022 – Aug 2023

Software Engineer

Pune, India

- Worked on backend **REST APIs** of an electronic signature app using **Java SpringBoot**, serving 60,000+ users, including company employees and clients to facilitate digital signatures.
- Leveraged **Apache Kafka** to manage continuous data streams, **Amazon S3** for document storage, and **Oracle MySQL** for user data storage.
- Implemented scrum/agile methodologies to enhance **CI/CD**, boosting Java code coverage by 60% using **JUnit** and **Mockito** and addressing 100+ production bugs.

Veritas Technologies LLC

Aug 2021 – May 2022

Research Project Intern | [Github](#)

Pune, India

- Devised **NLP** text classification model using **LSTM** and Google's LLM - **BERT** for auto-matching documents. Utilized rehearsal techniques to prevent memory loss while training model.
- Improved incremental learning recall by **45%** by writing a ranking algorithm prioritizing uncertain documents.
- Built web app with **Django** REST APIs in Python and **ReactJS**, the backend was **dockerized** and deployed to **AWS EC2** for scalable and efficient access.

PROJECTS

TripTonic | Mobile App | [Github](#)

Jan 2024 - May 2024

- Led a team of four to construct an **LLM** powered **mobile app** to transform user chats into personalized trip adventures.
- Designed an easy-to-use interface to generate a trip in just two clicks without any setup using **React Native** and **Expo**.
- Innovated a recommendation engine employing **GPT-3.5**, **langchain**, **Google Maps**, and **Redis** to adapt to tight budget constraints, transport modes, cuisines and much more to generate curated trips that **2x** user satisfaction levels.

Dynamic Thread Scheduler | *Operating Systems, Linux* | [Github](#)

Oct 2023 - Nov 2023

- Implemented thread scheduling in **C**, including thread structure creation and dynamic stack memory allocation.
- Created **Round Robin thread scheduling** using a Circular Linked List and achieved concurrent non-parallel execution by context switching between threads with `setjmp()` and `longjmp()` **kernel** system calls.

LEADERSHIP AND CO-CURRICULAR ACTIVITIES

- Served as a technical head of PICT IEEE Student Branch (PISB) for more than three years.
- Written technical blogs on medium.com/@gghati on topics like Natural Language Processing(NLP) models.