

# Alisha Rath

California, United States

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## EDUCATION

**San Jose State University**, California, USA

MS in Computer Science — GPA: 4/4

May 2025

Coursework: Database Systems, Artificial Intelligence, Server Side Programming, Design and Analysis of Algorithms

**Visvesvaraya National Institute of Technology**, Nagpur, India

BS in Computer Science — GPA: 9.3/10

May 2017

Coursework: Data Structures, Data Mining, OS, Cloud Computing, Object Oriented Programming, Web Programming

## SKILLS

**Languages:** Java, C++, JavaScript, Python, SQL, PHP, R, C

**Databases and Web Technologies:** React, Angular, Oracle, REST, AWS, HTML, CSS, Kafka, Spring Boot

## WORK EXPERIENCE

**Amazon Web Services**, East Palo Alto, California

Software Engineering Intern

May. 2024 – Aug. 2024

- Developed **ECS/Fargate** service with REST endpoints for streamlined S3 file retrieval.
- Implemented an **automated deployment pipeline** triggering S3 uploads upon successful builds.
- Optimized config change handling, reducing deployment time from **8 hours to 1 minute**.

**Fidelity Investments**, Bangalore, India

Lead Software Engineer

Dec. 2022 – Jun. 2023

- Led micro-services initiative**, optimizing platform maintenance time by 40% and boosting batch processing efficiency by 50% for the Quantitative Portfolio Management team. Collaborated with team globally for success.
- Saved millions of dollars** in ARR through **targeted optimization of AWS** resource usage like reducing EC2 size, S3 lifecycle management, etc
- Optimized a batch scheduling automation test suite, resulting in reduction of processing time from **5 hours to 15 minutes**
- Led a 7-member team for developing a successful **AWS API Gateway and Lambda project** as an alternative to Outlook
- Designed and implemented a Portfolio management User Interface using Angular 13, optimizing the user experience and reducing portfolio creation time.

**Fidelity Investments**, Bangalore, India

Software Engineer

Dec. 2017 – Dec. 2022

- Managed **S3 bucket** creation, lifecycle policies, and policy updates, boosting cloud storage and read-write by 23%
- Crafted a **cache manager** to streamline API calls, reducing data fetch time by 50 ms by eliminating redundant DB calls.
- Revolutionized the **portfolio advisory products on-boarding process**, reducing the timeline from **2 months to 10 minutes**
- Led and executed the migration of 100% of on-premises **microservices to AWS cloud**, enhancing operational efficiency
- Automated a **scheduler system**, reducing enhancement efforts by 75% and slashing overall test time by 63%

**Fidelity Investments**, Chennai, India

Executive Graduate Trainee

Jul. 2017 – Dec. 2017

- Led a time-sensitive project, implementing ledger-based transaction storage with **Ethereum gas and blockchain** for precision in transaction cost calculation.
- Collaborated with a team to create a resilient client app website, facilitating seamless trading and order viewing experience.

**Arcesium**, Hyderabad, India

Software Engineering Intern

Jun. 2016 – Aug. 2016

- Accelerated infrastructure deployment by 90% through crafting an efficient AWS CloudFormation template with Python's Boto library.

## KEY PROJECTS

**IP Spoofing Detection using Hop Count Filtering**

Visvesvaraya National Institute of Technology

Sep. 2016 – Mar. 2017

- Implemented hop count-based filtering** within the Linux network stack, effectively detecting and neutralizing spoofed IP packets during a reflector **DDoS attack** with precision

**Medical Utility App**

Visvesvaraya National Institute of Technology

May. 2015 – Jul. 2015

- Developed an **Android app** to facilitate health information retrieval, provide first aid insights, offer medicinal drug descriptions, and dispense home remedy guidance

## ACHIEVEMENTS & LEADERSHIP EXPERIENCE

- Awarded and lauded** for executing cloud migration tasks with a 100% efficiency improvement at Fidelity
- Received **On-Spot Awards** for exceeding expectations in achieving 100% automation of the scheduler process for batch processing at Fidelity.
- Delivered a Kotlin** Knowledge Transfer session at Fidelity for approximately 25 senior software developers, following attendance at **GIDS Summit**.
- Led and collaborated with a successful cricket team**, securing victory in an intra-college event during freshman year.