

# AASHISH NEHETE

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## EDUCATION

### University of Massachusetts Amherst

Sep 2022 – May 2024

MS Computer Science

GPA: 4.0/4.0

*Coursework:* Adv. Computer Networks, Distributed and Operating Systems, Machine Learning, Computer Security

### University of Mumbai

Jul 2015 – May 2019

BE Information Technology

*Coursework:* Data Structures and Algorithms, DB Management Systems, Cloud Computing, Big Data Analytics

## EXPERIENCE

### Spirent Communications — Software Engineer Intern

Remote | June 2023 – Present

- Designed ML pipeline to extract structured data from natural language input with **86% accuracy**
- Developed conversational AI chatbot to support customer service using Llama 2
- Redesigning legacy Windows applications as single page apps in React and Python to modernise user experience for customers which is expected to significantly improve time to market
- Engineering a network architecture for hosting web applications on remote client machines using Nginx

### UMass Amherst Center for Data Science — Data Science Intern

Amherst, MA | May 2023 – Aug 2023

- Analyzed 22 million Slurm jobs at Unity, a High Performance Computing cluster, and designed intuitive dashboards in Tableau increasing **user productivity by 100%**
- Automated resource usage reporting of the cluster to aid administrators in capacity planning using Python and SQL

### One2n — Site Reliability Engineer

Pune, India | Sep 2021 – Jul 2022

- Improved developer productivity 200x** by introducing CI/CD using Jenkins and Terraform to automate the build, test and deployment process
- Reduced mean time to respond to 50%** by integrating Grafana and Prometheus to improve observability into infrastructure
- Mentored 3 junior developers on SRE best practices, and designed new tutorials for onboarding

### WorkIndia — Infrastructure Engineer

Bengaluru, India | Jun 2020 – Sep 2021

- Reduced AWS costs by 67%** through cost-saving strategies like optimal resource allocation and auto-scaling cluster
- Migrated infrastructure from AWS EC2 to Kubernetes, resulting in **5x faster time to market for new features**
- Envisioned and led a new team to improve the scalability and security of the cloud infrastructure
- Engineered an isolated staging environment in Kubernetes that increased developer productivity

### WorkIndia — Full Stack Developer

Bengaluru, India | Jun 2019 – Jun 2020

- Increased revenue by 10%** by implementing automatic payment renewals using Django and PostgreSQL
- Redesigned a user-friendly job portal in React, **increasing user interactions by 45%**

## PROJECTS

### Identifying Security Risks in IoT Abandonware | Research, Python

Nov 2023

- Conducted **large scale study of 1500 Android apps** to identify security risks associated with abandoned IoT devices
- Expressed results and findings as a research paper detailing threat model, methodology and future work

### User Interaction Events Data Pipeline | Kafka, Spark, Cassandra, Presto

Nov 2022

- Implemented streaming Big Data ETL pipeline to process user interaction events on Netflix
- Used Apache Kafka, Spark, Cassandra, Presto
- Investigated performance of the system by varying number of cores and volume of input data

## TECHNICAL SKILLS

**Languages/Frameworks:** Python, Java, C, HTML, CSS, JavaScript, SQL, Go, C#, PHP, Django, React, Node.js

**DBs:** MySQL, PostgreSQL, MongoDB

**Technologies:** Linux, AWS, Kubernetes, Tableau, Jenkins, Terraform, Ansible, Grafana, Prometheus, Langchain

## PUBLICATION

### Real-Time Location Tracking System for Predetermined Routes | Android, Kafka, AWS

Grenze International Journal of Engineering and Technology, Vol. 7, Issue 2, July 2021