AASHISH NEHETE

EDUCATION

University of Massachusetts Amherst

Sep 2022 - May 2024

GPA: 4.0/4.0

MS Computer Science

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

University of Mumbai BE Information Technology Jul 2015 – May 2019

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

EXPERIENCE

Spirent Communications — Software Engineer Intern

Remote | June 2023 - Present

- Developing a conversational AI chatbot to support customer service using latest LLMs; evaluated and tuned multiple
 models and parameters to optimize performance
- Redesigning legacy Windows applications as single page apps in React and Python to modernise user experience for customers which is expected to $improve\ time\ to\ market\ by\ 10x$
- 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 22M Slurm jobs at Unity, a High Performance Computing cluster, and designed intuitive dashboards in Tableau increasing ${\bf user}$ productivity by ${\bf 100\%}$
- 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
- \bullet Reduced the MTTR 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

- \bullet 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

PUBLICATION

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

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