

KANAD NALESHWARKAR

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EDUCATION

Virginia Tech, Blacksburg, VA
Master of Engineering, Computer Science

Jan 2023 – Dec 2024
GPA: 3.8/4.0

Savitribai Phule Pune University, Pune, India
Bachelor of Engineering, Computer Engineering

Aug 2016 – May 2020
GPA: 7.5/10.0

EXPERIENCE

Virginia Tech, Dept. of Computer Science, Blacksburg, VA
Software Engineer (Volunteer Work)

Feb 2025 – Present

- Built an LLM chatbot using the **ChatGPT API** for students to learn programming interactively.
- Designed a chat UI using **React (TypeScript)**, backed by RESTful APIs written in **Python** to interact with ChatGPT and store the conversations in the **Postgres** database.
- Managed version control with **GitHub** and containerized the application using **Docker** for scalable deployment.

Virginia Tech, Dept. of Chemistry, Blacksburg, VA
Python Developer

Nov 2024 – Dec 2024

- Automated nuclear magnetic resonance (NMR) data analysis, reducing 80% of manual work by developing **Python** scripts compatible with various NMR instruments.
- Developed a **Unix Shell script** to automate the submission of Gaussian input files to a high-performance computing server, speeding up the analysis process.

Hansen Technologies, Pune, India
Software Developer (Contract)

May 2023 – Aug 2023

- Engineered a robust bulk order processing tool using **OpenSearch** and Linux Shell scripting, achieving a 300% increase in the reprocessing speed of failed telecom orders.
- Implemented monitoring and observability using **Prometheus** and **Grafana** for real-time visualization of application performance, Kubernetes clusters, and system logs.
- Automated deployments on **AWS** by configuring CI/CD pipelines with **Docker**, **Kubernetes**, and **Jenkins**, cutting deployment time by 75%

Hansen Technologies, Pune, India
Software Developer

Nov 2020 – Dec 2022

- Led the first **cloud-native** deployment of Hansen's B2B software, tailored for the biggest telecom service provider in the UK, serving over 6 million customers.
- Built scalable microservices using **Spring Boot** and **REST APIs**, written in **Java**, enabling communication between front-end, backend systems, and third-party services, with a 99.9% reliability rate.
- Optimized event handling for peak loads of 10,000 events per second by architecting event-driven applications with **Apache Kafka**, designing robust topics, partitions, and consumer groups for scalable and asynchronous communication.
- Achieved 99.95% product uptime by managing cloud infrastructure on **Amazon EC2**, **EKS**, and **S3**, ensuring consistent performance under high demand.
- Improved interactive **React** components to visualize order processing flows, enhancing understanding of complex workflows through dynamic, real-time updates.
- Optimized **Oracle** database **SQL** queries, improving response times by 40% and ensuring reliable management of customer data.

PROJECTS

Electronic Theses and Dissertations Classifier

Aug 2023 – Jan 2024

Trained and deployed a document classifier, based on the **BERT** language model, for an information retrieval system managing 500,000+ scientific documents. Used Streamlit for frontend and **PostgreSQL** to store data. Deployed the application on a high-performance computing server with 160GB of GPU memory, reducing inference time by 70%, enabling near real-time document classification.

RepoRanger: An integration between GitHub and Discord

Jan 2023 – May 2023

Integrated GitHub and Discord APIs using **JavaScript** to streamline DevOps for teams with 20+ contributors. Automated CI/CD pipeline updates and issue tracking, reducing manual effort by 50%, enabling faster development cycles.

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, HTML, CSS, SQL

Frameworks: Flask, Spring Boot, React, Node.js, NoSQL, PyTorch, TensorFlow

Tools/Platforms: AWS (EC2, S3, ECR, SageMaker), OpenSearch, Elasticsearch, Kafka, Git, Maven, Docker, Kubernetes, Helm, Jenkins, Kibana, Terraform, PostgreSQL, MySQL, DynamoDB, Postman, JIRA, ChatGPT API