# KANAD NALESHWARKAR

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### **EDUCATION**

Virginia Tech, Blacksburg, VA

Master of Engineering, Computer Science and Applications

Savitribai Phule Pune University, Pune, India

Bachelor of Engineering in Computer Engineering

Jan 2023 – Dec 2024 (Expected)

GPA: 3.8/4.0

Aug 2016 – May 2020

# GPA: 7.5/10.0

# **EXPERIENCE**

# Hansen Technologies, Pune, India

May 2023 - Aug 2023

- **Software Developer (Contract)** 
  - Engineered a robust bulk order processing tool utilizing **OpenSearch**, enabling efficient retrieval and 3x faster reprocessing of failed telecom orders.
  - Collaborated with a team of support analysts to set up Standard Operating Procedures (SOPs) that optimized troubleshooting for the code in production, resulting in enhanced productivity and streamlined operations.
  - Leveraged prior experience to write comprehensive training modules and detailed documentation for new hires, shortening their training period by 50%

# Hansen Technologies, Pune, India

Nov 2020 – Dec 2022

#### **Software Developer**

- Led the first cloud-native deployment of Hansen's telecom service provisioning product, tailored for the biggest telecom service provider in the UK.
- Engineered high-performance order processing pipelines that enabled customers to seamlessly install/update broadband connections, enhancing customer experience and reducing installation time.
- Built **REST APIs** using **Spring Boot** and **Java** to enable communication between the service provisioning product and ground telecom components.
- Developed Apache Kafka message queues to enable the decoupling of microservices and to facilitate asynchronous communication.
- Orchestrated seamless container management and scaling using **Docker** and **Kubernetes**.
- Configured robust CI/CD pipelines with Jenkins, automating the deployment process on AWS and reducing the deployment time by 75%
- Performed integration testing of the service provisioning product to ensure seamless functioning within the overall deployment.
- Provided support for code in production to troubleshoot system stability and performance issues.

#### **PROJECTS**

# **Electronic Theses and Dissertations Classifier**

Aug 2023 - Jan 2024

Trained and deployed a transformer-based document classifier model for an information retrieval system managing half a million scientific documents. Also developed a standalone app to perform experiments. Used **Streamlit** for frontend and **PostgreSQL** to store data. Deployed this app on a high-performance computing server to utilize GPU computing and get faster inference.

Report Link

#### **Ducky: A ChatGPT Backed Coding Assistant**

Aug 2023 – Dec 2023

Developed a coding assistant based on **ChatGPT API**. Added features using **prompt-tuning** to write, debug and modify code. Designed an innovative mechanism to combine user prompts with system prompts and to store and process conversations with ChatGPT. Built the frontend using Streamlit.

# Evaluating Cross-Modal Retrieval Performance of DiHT Model on Conceptual Captions Dataset

Jan 2023 - May 2023

Evaluated Meta's DiHT model on Google's Conceptual Captions dataset, assessing its performance in both image-to-text and text-to-image retrieval tasks. Effectively utilized several instances of Google Colab and Kaggle **Jupyter notebooks** to speed up the evaluation.

<u>GitHub Repo</u>

RepoRanger Jan 2023 – May 2023

Implemented a seamless integration of GitHub and Discord APIs in **JavaScript**, empowering team members to effortlessly manage their GitHub project repository, streamline CI/CD pipelines and track issues—all within a unified and efficient Discord channel environment.

<u>GitHub Repo</u>

# **TECHNICAL SKILLS**

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

Frameworks: Flask, Spring Boot, React, Node.js, PyTorch, TensorFlow, scikit-learn, Hugging Face, Jupyter, OpenCV

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

#### **PUBLICATION**

# A Comparative Study of Various Key-Point Detector-Descriptor Algorithms for Augmented Reality Applications

May 2020

International Conference on Emerging Trends in Engineering and Technology (ICETET), Nashik

Paper Link