KANAD NALESHWARKAR

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EDUCATION

Virginia Tech, Blacksburg, VA **Jan 2023 – Dec 2024 (Expected)**
Master of Engineering, Computer Science and Applications GPA: 3.8/4.0

Savitribai Phule Pune University, Pune, India **Aug 2016 – May 2020**
Bachelor of Engineering in Computer Engineering 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%
- Managed **Amazon EC2**, **EKS** and **S3** instances to ensure product uptime and performance.
- 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 document classifier model based on **Bidirectional Encoder Representations from Transformers (BERT)** 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**

Applied Meta's **Distilled and Hard-negative Training (DiHT)** approach 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.
GitHub Repo

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.
GitHub Repo

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