

NEEL VORA

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EDUCATION

Master of Computer Science (Thesis)

The University of Texas at Arlington

Aug 2022 - May 2024

(GPA: 4/4)

Bachelors in Information Technology

Dharmsinh Desai University

Aug 2019 - May 2022

(GPA: 8.21/10)

EXPERIENCE

Lawrence Berkeley National Lab

Research Intern

Berkeley, CA

Aug 2023 - Present

- Implemented **Agile** software development practices and CI/CD workflows, utilizing TensorFlow, Kubernetes, and Grafana for ML model iteration and monitoring.
- Translated a **Pytorch**-based LSTM model into hardware description language (**HDL**), implementing it on an FPGA with an efficient Look-Up-Table (LUT) operation of only 17%.

WSSLab

Research Intern

Amherst, MA

May 2023 - Aug 2023

- Developed a patient EEG signal monitoring and analysis system, leveraging **Node.JS** along with the deployment of machine learning algorithms.
- Designed and implemented a real-time streaming API on Google Cloud Platform (GCP) to significantly reduce latency by **25%**, ensuring immediate results.
- Created application using **React** for interactive user interfaces and **MongoDB** for data storage and retrieval.

The University of Texas at Arlington

Graduate Research Assistant

Arlington, TX

Aug 2022 - May 2023

- Optimized throughput of **LLM** (llama with 13 billion parameters) inference by utilizing paged attention technique.
- Developed a Kubernetes-based pipeline to manage workflow reducing latency by **15%** through efficient data management
- Collaborated with cross-functional team to integrate the app with existing systems and increased system efficiency by **10%**.

The Tann Mann Gaadi

MLE Intern

Bengaluru, India

Sept 2021 - Jun 2022

- Built a web application using React and integrated an ML model with an application using NodeJS within an **Amazon S3** bucket.
- Designed algorithms for context-based ad placement in movies for OTT platforms, boosting advertisement revenue by **28%**.
- Devised a platform that enables clients to receive audience engagement analytics using **Amazon QuickSight**.

PUBLICATION

Real-Time Diagnostic Integrity Meets Efficiency: A Novel Platform-Agnostic Architecture for Physiological Signal Compression

Pre-Print ArXiv 2023 [arXiv:2312.12587v2](https://arxiv.org/abs/2312.12587v2)

DroneChase: A Mobile and Automated Cross-Modality System for Continuous Drone Tracking

ACM, Micro Aerial Vehicle Networks, Systems, and Applications (DroNet '23) doi.org/10.1145/3597060.3597237.

PROJECTS

Stockopedia [\[Code\]](#)

Designed and developed a JavaScript and Flask-based web platform, offering an intuitive user interface for real-time stock analysis, data visualization using Chart.js, and seamless integration with the trained stock price prediction model, which achieved an impressive 89% accuracy using two decades' worth of historical data from the Yahoo Finance API.

SKILLS

Programming Language & Databases: Python, C++, Java, MATLAB, JavaScript, MySQL, MongoDB.

Framework & Libraries: Pandas, Librosa, React, Flask, NodeJS, Django, Spring Boot, PyTorch, Keras, RestAPI, Chart.JS, Hadoop.

Tools & Services: Git, AWS, GCP, Agile Development Process, CUDA, PowerBi, Postman, Docker

EXTRA-CURRICULAR ACTIVITIES

- Visiting research scholar at The University of Massachusetts Amherst under supervision of [Dr.VP Nguyen](#).
- Mentored group of 7 juniors as ML Team Head at Google Developer Student Clubs (GDSC).
- Ranked among top 3% participants in competitive programming competition 'Gujarat State Hackathon'.