# VIKNESH RAJARAMON

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#### **TECHNICAL SKILLS**

**Programming Languages:** Python, Golang, C/C++, MySQL, PostgreSQL, SingleStore, JavaScript, HTML/CSS **Frameworks & Libraries:** Pytorch, NumPy, Pandas, Matplotlib, Scikit, TensorFlow, Keras, Flask, OpenCV, PIL

Deployment Tools: Git, Github, GCP

Tools: Amazon QuickSight, Power BI, VS Code

Machine Learning Models: Regression, Decision Trees, SVM, Clustering, Neural Network, CV, NLP

#### **EDUCATION**

## **Master of Science in Computer Science**

Arizona State University, Tempe, AZ, USA

GPA: 3.93 / 4.0

Aug 2023 - May 2025

## **Bachelor of Technology in Computer Science & Engineering**

IIITDM Kancheepuram, Chennai, India

Jul 2018 - May 2022 GPA: 8.88 / 10.0

## PROFESSIONAL EXPERIENCE

# Machine Learning Intern | Meddsoft UK Limited, London, UK

May 2024 - Aug 2024

- Developed a **PyTorch** model for diabetic retinopathy detection from fundus images, achieving high classification accuracy with **CNN**-based feature extraction.
- Built a real-time image upload and result display interface using Flask, HTML, CSS, and JavaScript, delivering
  results in 6 seconds per image.
- Enhanced model input quality and prediction accuracy through advanced preprocessing (blood vessel detection, exudate extraction) using OpenCV and PIL and optimized training pipelines with custom augmentation and early stopping strategies.

## Software Engineer | Factors.AI, Bengaluru, India

May 2022 - Jul 2023

- Designed and developed an optimized Salesforce Tasks and Events pipeline, leveraging **Golang, Salesforce object queries** and **APIs** for enhanced funnel analytics and reporting, **reducing customer churn by 30%**.
- Developed and deployed solutions in **Python** to overcome data pull limits of newer API versions of Hubspot solutions, **eliminating data latency by 50%**.
- Optimized and eliminated redundant SQL queries for real-time marketing analytics, reducing response time by 25%.

## Data Analyst Intern | IViewSense Private Limited, Chennai, India

May 2021 - Oct 2021

- Designed and developed a highly innovative business intelligence report for business management, data visualization and reporting using tools like Amazon QuickSight resulting in a 30% increase of overall efficiency.
- Performed data extraction, preprocessing, and visual creation on real-time data from various sources and used SQL queries to create new key performance indicators (KPIs).
- Prioritized customer feedback and performed changes to enhance customer experience, resulting in a 20% increase in customer retention rates.

#### **ACADEMIC PROJECTS**

## Fine-Tuning LLaMA-2 on GSM8K

Sep 2024 - Oct 2024

• Developed a custom fine-tuning pipeline for LLaMA-2 using **LoRA** and **4-bit quantization** on GSM8K dataset, optimizing memory efficiency and integrating **WandB** for performance monitoring.

#### Colorization of Grayscale Image

Jan 2024 - May 2024

• Developed a **GAN** on the NCD dataset to enhance colorization accuracy by 25%, incorporating a custom NoGAN-pix2pix approach with an optimized generator.

# **Stock Price Forecasting**

Nov 2021 - Dec 2021

• Implemented a Python-based ML model using LSTM networks to forecast stock prices, achieving a mean squared error of 893.65 through hyperparameters optimization and advanced data preprocessing techniques.

### Traffic Sign Classification

Apr 2021 – May 2021

• Developed a **CNN** model for traffic sign classification, achieving 94.37% accuracy and implemented a user-friendly GUI with **Tkinter** for real-time sign recognition.