Matthew Frank

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Education

University of California, Berkeley

2024

M.S. Information and Data Science (MIDS)

University Of California, Santa Cruz

2018

B.S. in Computer Science

Experience

Live Data Technologies

Santa Barbara, CA

Machine Learning Engineer

July 2024 - Present

- Data Normalization and Enhancement: Standardized 80 million records using APIs, implementing automated validation, vectorized transformations, and fuzzy matching to reconcile location, education, and industry data, improving accuracy and scalability for ML models.
- Job Tenure Prediction: Developed a time series neural network combining Transformers, LSTMs, and attention mechanisms, leveraging feature engineering and ensemble learning to boost prediction accuracy by 10%.
- Chat LDT Development: Built Chat LDT, a transformer-based query system with Chain of Thought reasoning and few-shot learning, achieving 95% accuracy in translating complex user queries into actionable schema terms.
- Workforce AI ChatBot: Built a LangGraph-based chatbot integrating internal APIs, internet search, and Python tools, enabling natural language workforce analytics with structured, reliable outputs.

Uniquify, Inc San Jose, CA

Machine Learning Research Manager

September 2021 - October 2023

- Designed and led the implementation of CI/CD pipelines for the Seraphim project, enabling seamless model deployment and reducing integration times by 30%.
- Managed a team of software engineers to refactor and modernize legacy code into Python, enhancing maintainability and execution efficiency.
- Led computer vision R&D efforts in segmentation, facial recognition, pose estimation, and defect detection for semiconductor inspection and multimedia applications.

Uniquify, Inc San Jose, CA

Machine Learning Research Engineer

October 2018 -September 2021

- Led computer vision R&D efforts in segmentation, facial recognition, pose estimation, and defect detection for semiconductor inspection and multimedia applications.
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- Bethel: Celebrity Facial Recognition System Built and fine-tuned a facial recognition pipeline using 10K+ celebrity images, reaching 98% accuracy.
- Implemented pose estimation models for human activity recognition and integrated segmentation pipelines to enhance downstream object detection tasks.
- Applied defect detection models to manufacturing image data, improving early error identification and visual QA.

Skills & Interests

Computer Vision (Object Detection – YOLO, Faster R-CNN; Segmentation; Facial Recognition; Pose Estimation; Defect Detection), Video Processing (FFmpeg, Optical Flow, Frame Sampling, Real-Time Inference), Machine Learning & MLOps (PyTorch, TensorFlow, LangGraph, LangSmith, LLMOps, RAG, Prompt Engineering, CI/CD, AWS, Streaming APIs), Data Processing, Optimization, Reinforcement Learning, Algorithmic Trading.