**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

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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,