

# KYLE NAKAMURA

Los Angeles, California

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## CAREER PROFILE

Results-driven Full Stack Developer with 7 years of experience and an M.S. in Computer Science, specializing in Machine Learning. Expertise in full-stack development and data-centric engineering, with a proven track record of launching greenfield projects and delivering user-friendly applications. Dedicated to continuous learning through mentorship and active contributions to side projects, including the overhaul of the open-source mlrose-ky package.

## KEY SKILLS

<b>Professional:</b>	Project Management, Junior Staff Leadership, Agile/Scrum, Technical Problem Solving
<b>Software Dev.:</b>	Full-Stack Development, Angular, React, SvelteKit, TypeScript/JavaScript, PHP, HTML, SCSS, Rapid Prototyping, Code Quality Maintenance, Technical Documentation, CI/CD, Docker
<b>ML &amp; Technical:</b>	Python, TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas, Matplotlib, NLP/LLMs, Database Management & Optimization (MySQL), Version Control (Git, GitHub), Linux/Unix, Cloud Services (AWS, GCP, Azure), RESTful APIs

## EDUCATION

<b>Master of Science in Computer Science (Machine Learning)</b> Georgia Institute of Technology, Atlanta, GA	<b>08/2021 – 05/2024</b>
<b>Key Coursework:</b> Machine Learning, Graduate Algorithms, Computer Vision, Computational Photography, AI Ethics	
<b>Bachelor of Science in Computer Science (Minor in Mathematics)</b> Azusa Pacific University, Azusa, CA	<b>08/2014 – 05/2018</b>

## PROFESSIONAL EXPERIENCE

<b>Machine Learning Engineer</b> Custom Stacks, LLC., Los Angeles, CA	<b>11/2024 – Present</b>
<ul style="list-style-type: none"><li>Optimize LLM prompts, reducing API costs and enhancing user interactions by correcting mispronunciations.</li><li>Enhance codebase quality, refactoring for readability and developing utility functions to support maintainability.</li><li>Initiate observability measures, logging latencies between services like AWS Bedrock, ElevenLabs, and Deepgram.</li></ul>	
<b>Freelance Full-Stack Web Developer</b> GeekOffice, LLC., Los Angeles, CA	<b>01/2023 – Present</b>
<ul style="list-style-type: none"><li>Spearhead diverse web development projects, transforming startup visions into branded design solutions.</li><li>Directly engage clients to define requirements and guide them on feasible, budget-aligned strategies.</li><li>Craft responsive web designs and integrate APIs using Angular, SvelteKit, and creative CSS techniques.</li></ul>	
<b>GeekOffice Project:</b> Collaborated with diverse team to design a showcase website for our company.	
<b>HyCite.com Project:</b> Partnered with a web designer to build a corporate website using Angular and Dato CMS.	
<b>Design2Text Project:</b> Leveraged SvelteKit and OpenAI API to convert Figma designs into requirement docs.	
<b>WHIP Cars Project:</b> Created an intuitive load management app for auto transport using SvelteKit and Supabase.	
<b>Shiftwell Project:</b> Engineered a shift scheduling application for restaurant managers using SvelteKit and Firebase.	
<b>Full-Stack Web Developer</b> Azusa Pacific University, Azusa, CA	<b>05/2017 – 06/2022</b>
<ul style="list-style-type: none"><li>Led front-end development to launch the university web portal, enhancing functionality with PHP, CSS, and JS.</li><li>Collaborated on backend development, integrating databases/APIs and developing secure SQL queries.</li><li>Integrated analytics for strategic insights, managed iOS app (Swift), and reduced API costs by \$180/m (90%).</li><li>Launched a CV occupancy monitoring system and a video streaming service with attendance tracker.</li><li>Mentored junior developers, overhauled the legacy codebase, and established a detailed wiki.</li></ul>	

## PROJECTS

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### Open-Source Python Package for ML Engineering

06/2024 – Present

[GitHub](#) | [PyPi.org](#)

- Forked and refactored 10,000+ lines of code in the mlrose-hiive repository for better quality and maintainability.
- Added tests using Pytest, boosting code coverage from 5% to over 88%, ensuring robust functionality.
- Improved documentation with detailed docstrings and modern type hints for better accessibility and usability.
- Fixed critical bugs and optimized performance through NumPy vectorization and algorithm optimizations.
- Continuing to increase test coverage and optimize performance, ensuring long-term maintainability.

### ML Dataset Preprocessing Toolkit

08/2023 – 07/2024

[GitHub](#)

- Created a versatile dataset toolkit, enabling seamless data preparation from various sources (e.g., Huggingface).
- Automated common data preparation tasks like encoding, scaling, normalizing, and sampling data.
- Developed an image-to-tabular conversion pipeline for image-based datasets, utilizing advanced resizing techniques to preserve aspect ratios and enhance downstream ML performance.
- Added features for class balancing and feature engineering, significantly boosting the efficiency of ML model training across diverse dataset formats.

### Funded Project: Real-Time Campus Parking Lot Occupancy System

01/2018 – 08/2018

Azusa Pacific University

- Collaborated with a classmate under the mentorship of an AI professor to develop a computer vision-based system that monitors campus parking lot occupancy in real-time.
- Created a 3D model of the campus parking lot in Unity, generating a synthetic dataset of images to train a Convolutional Neural Network (CNN) using TensorFlow.
- Deployed the model and Flask API to the cloud, processing live video feeds from IP cameras to provide real-time occupancy data to the frontend interface I developed.
- Successfully implemented a cost-effective solution that helped students and faculty find parking efficiently, demonstrating practical ML applications on campus.