

# Mei Zhang

Santa Clara, CA ◦ [meizhang.dev@gmail.com](mailto:meizhang.dev@gmail.com) ◦ +1 (209) 631-8875

[Developer Site](#) ◦ [Github](#) ◦ [Linkedin](#)

## TECHNICAL SKILLS

---

**Languages:** Python, SQL, Typescript, Go, C/C++

**Libraries:** NumPy, Pandas, SK-Learn, Matplotlib, PyTorch

**Technologies:** Node/Express, React/Next, HTML/CSS

**Deployment:** GCP, AWS, Docker, K8s, Git, GH Actions

## WORK EXPERIENCE

---

### Clinical Assessment Tools - Contract

Santa Clara, CA

*Full-Stack Developer*

Dec. 2023 - Apr. 2024

- Developed assessment management system, streamlining clinical workflow for Psychiatrists, building a Node.js API server for handling assessment customization and data aggregation.
- Designed accessible UI components, aiding users with visual and auditory impairments, using React.js to feature text-to-speech functionality and colorblind mode.
- Deployed HIPAA-compliant database, supporting health data analysis on 300+ patients, leveraging GCP Compute Engine and PostgreSQL to ensure PHI security and accessibility.
- Integrated DSM-5 referencing, reducing diagnostics time, utilizing FAISS to provide reference material and metadata as response to assessment results.

### Kazlin Infinite Care LLC.

Merced, CA

*RCFE Caregiver*

Mar. 2022 - Dec. 2022

- **Job Description:** Provided accommodated care for Alzheimer's and Dementia patients, prepared prescription refills and medication passes, and documented patient well-being.

## PROJECT EXPERIENCE

---

### Dynamic GUI Automations

Oct. 2024 - May. 2024

- Expanded user-access to script controls and runtime monitoring tools, improving automation QoL for +100 users, utilizing Django and Discord.py for API server development.
- Optimized template matching compute speed by 15%, reducing input image regions to focus on successful hits with NumPy.

### Investment Inferencing

Sep. 2024 - Oct. 2024

- Developed an ARIMAX model to forecast stock prices, achieving a MAE of 1.41% and RMSE of 1.67%. Retrieved and processed stock data using Python, yfinance, and pandas, incorporating technical indicators such as Exponential Moving Averages (EMA).
- Automated the collection and preprocessing of 3000+ articles, using SK-Learn and Regex to identify company tickers and article date formats, improving data extraction efficiency.

### AI Repository Tools

Sep. 2024 - Sep. 2024

- Streamlined end-user developer operations by reducing setup time by 90%, deploying a CLI to verify API usage credentials and automate repository indexing for task orchestration.
- Automated change log generation, improving team synchronicity, by leveraging Github API to route version differences and context LLM prompt completion.

### Efficient CNN Tiling Library

Jul. 2024 - Aug. 2024

- Created an interpretable neural network library with NumPy, reducing debugging time by 65% through reusable layers and real-time data flow monitoring (e.g., compute time, dimensionality). Integrated Tableau dashboards to visualize model performance.
- Developed a system that improved matrix multiplication efficiency by 10%, automating the identification of cache-efficient tile sizes for common CNN image training datasets.

## EDUCATION

---

### California State University Stanislaus

Turlock, CA

*Computer Science, B.Sc*

Aug. 2022 - Dec. 2023

- Coursework: Software Engineering, Ecommerce System Design, HCD, AI/ML, Data Structures & Algorithms.
- ECs: VP @ Computer Science Club, Hack Merced @ UCM, Research Student @ Compute Research Association.