

# Mei Zhang

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

## EDUCATION

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### 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.

### Merced City College

Merced, CA

*Computer Science, AS-T*

Jan. 2020 - May. 2022

## TECHNICAL SKILLS

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

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

**Technologies:** Node, Django, React, HTML/CSS

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

## PROJECT EXPERIENCE

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### Vision-Based GUI Automations

Oct. 2024 - Nov. 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.

### Repository AI + Dev 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 changelog generation, by utilizing a Node server to integrate an in-house LLM/RAG model for version changes from the Github API.

### 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.

### Patient Assessment App

Dec. 2023 - May. 2024

- Integrated patient assessment tools for Psychiatrists, aggregating and visualizing data from 300+ existing assessments using PostgreSQL and React.js, reducing diagnostic referencing time. Deployed using Docker for containerization.
- Maintained database health by optimizing query performance, reducing query I/O time by 25% through regular analysis using pgAdmin, focusing on high I/O queries. Incorporated ETL pipelines to streamline data ingestion.

## WORK EXPERIENCE

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### 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.