Mei Zhang

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Github ∘ Linkedin

Skills

Languages: Python, SQL, Typescript, C/C++
Libraries: NumPy, Pandas, PyTorch, SK-Learn, MatPlotLib
Technologies: Node/Express, React/Next, Docker
Cloud: Compute Engine, Kubernetes, Cloud Run

Experience

AI Developer Tools — San Francisco, CA
Software Engineer - Freelance — Aug. 2024 - Sep. 2024

- Streamlined end-user developer operations, deploying CLI to verify API usage credentials and manage repository indexing.
- Designed automated change log feature, utilizing Node server to employ in-house LLM/RAG model to generate text based on version changes retrieved by Github API.
- Managed front-end feature integrations; building Next.js page templates, components, and tests for prospective features.

Mind Mender: Clinical Systems — Santa Clara, CA
Full-Stack Developer - Contract — Dec. 2023 - Apr. 2024

- Integrated patient assessment tools for Psychiatrists, using PostgreSQL and React.js to aggregate and visualize patient data trends.
- Implemented diagnosis recommendation system, utilizing SK-Learn to reference diagnosis matching similar assessment scores and deploying Node API access to model.
- Maintained database health, optimizing query performance supported by pgAdmin to identify queries with highest I/O usage.

Projects

ML Implementation Guides — Oct. 2024 - Present

- Published documentation for learning mathematical concepts behind machine learning implementations; providing interactive example models with SK-Learn, MatPlotLib, and Desmos.

Template Matching Optimizer — Sep. 2024 - Oct. 2024

- Improved compute speed of vision-based automation, reducing input image regions to concentration of successful hits with NumPy.

Interpretable Neural Networks — Jul. 2024 - Present

- Developed a interpretable neural network library, leveraging NumPy to build reusable network layers and monitor data flow (e.g., compute time, dimensionality, and cumulative sum).

Data Mining & Preprocessor — Apr. 2024 - May 2024

- Automated data collection of articles mentioning publically traded companies, preprocessing HTML data using SK-Learn and Regex to identify company tickers and article date formats respectively.

Efficient Tiling for ConvNets — Sep. 2023 - Mar. 2024

- Introduced a system to improve matrix multiplication, automating identification of cache-efficient tile sizes against common CNN image training sizes.

Education

Stanislaus State University — Turlock, CA
Computer Science, B.Sc — Aug. 2022 - Dec. 2023

- Relevant Coursework: Software Engineering, Bioinformatic ML, AI & Neural Nets, Data Structures & Algorithms.
- ECs: Compute Research Association, VP @ Computer Science Club, UCM Hack 23'.