May Zhang

Software Engineer with experience building scalable systems and data-driven tools.

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SKILLS __

Python, SQL, JavaScript/TypeScript, C/C++, Go Languages:

Deployment: GCP, Kubernetes, Docker, AWS, GitHub Actions, NGINX

Frameworks: FastAPI, gRPC, GraphQL, Django, Node.js + Express.js, Flask, LangChain

Databases: PostgreSQL, Redis, MongoDB, DynamoDB, BigQuery

Libraries: NumPy, Pandas, Scikit-learn, PyTorch

PROFESSIONAL EXPERIENCE ___

RWJBarnabas Health

Dec. 2022 - Dec. 2024 Jersey City, New Jersey

Software Engineer

- Designed a HIPAA-compliant backend on GCP with PostgreSQL and access control, supporting secure storage of 10k+ patient records.
- Built anomaly detection services in Python to surface critical health patterns from longitudinal data, enabling early physician intervention.
- Reduced production error rates by 45% by integrating Resilience4j for circuit breaking, retries, and graceful fallback in core services.
- Orchestrated Docker-based recovery pipelines to auto-requeue cached patient data, improving system recovery and uptime during outages.
- Automated EHR onboarding workflows by digitizing intake forms and legacy files using Node.js and GraphQL, reducing manual effort by 60%.
- Designed modular patient charting APIs with Express and GraphQL, enabling real-time editing and role-based access in multi-clinic deployments.

PROJECT EXPERIENCE _

Care Match • User Recommendation System | Github

Mar. 2025 - Present

- Enabled zero-downtime updates by designing a blue-green deployment system using GitHub Actions and GKE, reducing rollout errors across environments.
- Connected careseekers and caregivers by implementing a KNN-based recommendation system using Scikit-learn, improving match quality and search relevance.
- Boosted search flexibility by integrating semantic search on caregiver bios with all-MiniLM-L6-v2 + FAISS, enabling custom text-based queries.
- Enhanced location relevance of results by filtering recommendations through PostgreSQL queries on user proximity and distance limits.
- Improved KNN accuracy and reduced memory usage by 35% through dimensionality reduction using NumPy and Pandas.

Repo Mate • Developer Tooling | Github

Sep. 2024 - Sep. 2024

- Built CLI onboarding tool to streamline LLM repo indexing using Python, reducing setup time for new users by over 70%.
- Reduced manual documentation effort by integrating GitHub API + RAG pipeline into CLI workflow to auto-generate changelogs.
- Aided internal adoption by demonstrating tool workflows and summarizing performance metrics for engineering teams.

EDUCATION