

Felix Wang

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EDUCATION

Georgia Institute of Technology

Atlanta, GA | Dec 2023

BS IN COMPUTER SCIENCE | GPA: 4.0

Coursework: Database System Implementation, Machine Learning, High Performance Computing, Networking, Systems and Networks, Design and Analysis of Algorithms, Robotics and Perception, Computer Organization and Programming, Database Systems, Data Structures and Algorithms, Object Oriented Programming

EXPERIENCE

DATADOG | SOFTWARE ENGINEER

New York, NY | July 2024 - Present

- Spearheaded the first implementation of pagination across the team's APIs, streamlining data retrieval and significantly improving performance for large datasets by over 30x.
- Drove the migration of our control plane APIs to a new framework, safely rolling out traffic to the new APIs and deprecating the old endpoints leading to improved latency.

DATADOG | SOFTWARE ENGINEER INTERN

New York, NY | May 2023 - Aug 2023

- Led development of a service to classify customer organizations by amount of ingested data to more efficiently allocate data across an in-memory distributed database, reducing query latency and network traffic overhead.
- Emitted metrics and logs to the DataDog UI and set up monitors to alert potential misclassified organizations, accelerating the transitioning process for misclassified organizations.
- Built a dashboard of service level objectives and current performance, allowing easy monitoring of service health.

GOOGLE | SOFTWARE ENGINEER INTERN

Sunnyvale, CA | Aug 2022 - Nov 2022

- Implemented an asynchronous gRPC API to return user attributes for the personalization of content displayed on the Google Cloud web interface, increasing user engagement.
- Created a database table to serve as a cache due to high latency sensitivity to decrease the response latency from approximately 3000 ms to 100 ms, an improvement of over 96%.
- Constructed an end-to-end parallel data processing pipeline in Apache flume to periodically backfill the database table with historical user attributes from external data stores in order to minimize data staleness.

AMAZON | SOFTWARE DEVELOPMENT ENGINEER INTERN

Seattle, WA | May 2022 - Aug 2022

- Developed a periodic service in Kotlin that queries performance metrics from Amazon's internal network and publishes the data to a DynamoDB table every 30 minutes.
- Made the service extensible to future use cases by making the metric type configurable through a JSON template.
- Decreased the operational load required for customer data inquiries and improved data visibility by integrating the service with a web interface serving as a source of truth for EC2 cell metrics.

GEORGIA INSTITUTE OF TECHNOLOGY | STUDENT RESEARCHER

Atlanta, GA | Jan. 2021 - May 2022

- Optimized cutoff distance for a nearest neighbor subsampling algorithm to eliminate redundant data points.
- Fine-tuned hyperparameters to minimize the mean squared error for a neural network.

PROJECTS

QUERY TIME PREDICTOR 

PYTHON, SQL, POSTGRESQL, MACHINE LEARNING

Predict execution time of SQL queries from query statements and execution plans.

- Generated query statements, execution times, and query execution plans by running benchmark tests with pgbench and a custom SQL script on a sample PostgreSQL database of over 200 million tuples.
- Reduced the dimensionality of feature embeddings of the query statements and execution plans computed using the OpenAI API by performing Principal Component Analysis with scikit-learn.
- Trained an XGBoost machine learning model with the retained feature embeddings using EvaDB, an AI integrated query engine, and achieved an R-squared score of over 0.8.

SKILLS

Languages and Technologies: Golang, Python, Java, C/C++, SQL, Git, PostgreSQL, gRPC, Kubernetes