Jeremy Hsu

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EDUCATION

Harvard University

Cambridge, MA

B.A. in Computer Science with Honors (GPA: 3.76/4.0)

May 2024

Coursework: Distributed Systems (MIT), Operating Systems, Data Structures and Algorithms, Data Systems Artificial Intelligence, Big Data Systems, Design of Useful Interactive Systems

EXPERIENCE

Stripe

Seattle, WA

Software Engineer Intern · Document Database Fleet Management Team

June 2023 - September 2023

Meta

Menlo Park, CA

Software Engineer Intern · Facebook Avatars Team

May 2022 - August 2022

- o Implemented the backend for 3D avatar sticker categories in Hack (PHP), refactored client GraphQL queries, and handled 2D to 3D sticker migration on platforms such as the Facebook news feed, driving increased user engagement with avatars and helping them find their desired sticker over 23% faster.
- o Designed and built a new internal tooling website using Hack, React, and Relay that enables engineers, cross-functional partners, and graphic artists to directly manage avatar stickers and categories.

Lime

San Francisco, CA

Software Engineer Intern · Partnerships Platform Team

May 2021 - August 2021

- o Architected and developed the end-to-end refund flow, user lifecycle API, and an endpoint to fetch real-time vehicle data through QR code scanning or license plate entry for a server-side API build with Ruby on Rails, enabling seamless MaaS integrations between Lime vehicles and public transit apps, and which publicly launched in August 2021.
- o Extended the functionality of an internal administrative portal by creating React UI components that support assigning permission access-control roles and viewing mobility data feed instructions for regions and external partners.

Cisco

San Jose, CA

Software Engineer Intern · Webex Media Engine Team

May 2020 - May 2021

- o Significantly improved developer productivity by building new Python-based internal tools, deployed using Jenkins or CLI interfaces, to query, analyze, and triage client logs for a cross-platform media SDK for Webex Meetings and Teams.
- o Implemented a new data aggregation layer in the SDK's metrics ETL pipeline using Python, the Elasticsearch API, and Airflow, increasing Kibana dashboard loading times by over 500%.

ACTIVITIES

Harvard University

Cambridge, MA

Research Assistant for Eddie Kohler, Stratos Idreos

February 2022 - Present

- o Designed and implemented a Python and C++ system that, given a dataset and its workload, can rapidly determine an optimal partitioning of keys and optimal data layouts for each partition, and presents up to a 53% end-to-end latency reduction for certain test workloads and over an 11% reduction for Meta's real-world key-value workload on RocksDB.
- o Built an open-source Python platform for conducting fast and robust hyperparameter optimization scheduler experiments by applying an expressive parametric modeling approach to accurately simulate loss landscapes on real-world datasets.

Harvard University

Cambridge, MA

Teaching Fellow for CS 61 (Systems Programming and Machine Organization)

Fall 2022

o Taught sections, held office hours, and graded labs for a 200+ enrolled course on computer systems programming fundamentals such as memory management, kernel programming, caching, concurrency, and low-level performance.

Datamatch

Cambridge, MA

Algorithm Lead (2021-2022), Algorithm Developer (2019-2021)

September 2019 - May 2022

o Led a 20+ student team to redesign and add new features such as user bio sentiment analysis to Datamatch's scoring and matching algorithms written in C++ and Python, which has scaled to match 50,000+ students across 40+ schools.

TECHNICAL SKILLS

Programming Languages: C, C++, Python, Golang, Java, JavaScript

Frameworks & Technologies: React, Ruby on Rails, Node.js, PyTorch, TensorFlow, Firebase, Elasticsearch, GraphQL