

David Hanan Li

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EDUCATION

Georgia Institute of Technology, Atlanta GA

Master of Science in Computer Science, Systems Specialization *Anticipated Graduation Date: December 2021*

Relevant Courses: *Advanced Operating Systems, System Issues in the Cloud* *GPA: 4.0*

University of Michigan, Ann Arbor MI

Graduated May 2020

Bachelor of Science in Computer Science

GPA: 3.823

Bachelor of Science in Data Science

Relevant Courses: *Operating Systems, Machine Learning, Web Systems, Data Structures and Algorithms*

EXPERIENCE

Google, Mountain View CA

Software Engineer Intern

May 2021 – August 2021

- Responsible for metadata syncing of internal metadata catalog team.
- Processed and populated metadata field for at least **28%** of all considered catalog rows by building a data processing pipeline in **C++** to sync in data from another source.
- Reduced pipeline runtime by **83%** through optimization techniques such as sharding, filtering, and heuristic matching with prefix tries.
- Designed and added new commands to internal command line tool using **C++**.

Microsoft, Seattle WA

Software Engineer Intern

May 2019 - August 2019

- Responsible for performance optimization for backend service in an internal Microsoft Advertising team.
- Improved Authentication API speed by **10%** on average by optimizing **.NET C#** service's architecture.
- Lowered **.NET** service's garbage collection active time by **20%**, decreased service's commit size RAM by **25%** by changing the backend software architecture of service.
- Analyzed system performance and changed software architecture by utilizing regular and **REDIS** caches

Georgia Institute of Technology, Atlanta GA

August 2021 - Current

Graduate Teaching Assistant – CS8803: Systems Issues in the Cloud

- Designing **MapReduce** project using **Go**, **Docker**, and **Azure Kubernetes Service**.
- Responsible for coordinating coding projects for **Network Functions Virtualization** module of the class
- Responsible for overseeing **Distributed System** projects in **Azure** and **Software Defined Networks** projects
- Responsible for grading all workshops and projects in **C++**, **Python**, and **Go**.

RESEARCH

Miniature Tether Electrodynamics Experiment (MiTEE), Ann Arbor MI

Assistant Lead of Command and Data Handling Sub-team

January 2019 – August 2020

- Developed custom **file system** for cube satellite using **C**, communicating with hardware through **SPI**
- Led team to build real time visualization dashboard for satellite's data using **Python Flask** and **Javascript**.
- Designed MiTEE's public website, using **HTML** and **Bootstrap CSS**

Dynamic Project Management Lab, Ann Arbor MI

Research Assistant

September 2019 - June 2020

- Built **Digital Twin** real time tracking system of robots in construction site with latency of **1.2 seconds** using **Unity** and **Microsoft Azure**.
- Designed and implemented system to track and store brick locations and update blockchain smart contract using **Microsoft Azure IoT** and **Microsoft Azure Blockchain Workbench**.
- Implemented **Reinforcement Learning** algorithm for Digital Twin robots in **Unity C#**

SKILLS

Programming Languages: C++, C, C#, Python, HTML, CSS, Go

Frameworks and Services: Azure, Kubernetes, Mininet, Docker, .NET