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, Cloud Systems, Big Data Systems,*   *GPA: 4.0*
      Database System Design

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 - Current*
- Increased availability of a certain metadata field by **34%** by building a data processing pipeline in **C++** to sync in data from another source.
- Designed and added new commands to team's internal command line tool using **C++** to allow user access to a whole new feature from the command line.
- Analyzed and optimized data processing pipeline performance through sharding and filtering.

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

Intel, Shanghai China
Software Engineer Intern   *July 2018 - August 2018*
- Increased availability for CI web application by **50%** by implementing load-balancing and containerization solutions to web application using **HAProxy and Docker**
- Upgraded internal CI web application tool in **Django** from **Python 2** to **Python 3**

RESEARCH

Miniature Tether Electrodynamics Experiment (MiTEE), Ann Arbor MI
Assistant Lead of Command and Data Handling Sub-team   *January 2019 – August 2020*
- Assistant lead
- 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
Frameworks and Services:	Unity, .NET, pyTorch, Flask, React, Docker, HAProxy