

Melanie A. Chow

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Education

University of Chicago

B.S in Computer Science, Minor in Statistics || GPA: 3.92

Chicago, IL

June 2021

- **Relevant Courses:** Software Construction, Networks and Distributed Systems, Advanced Distributed Systems, Usable Security and Privacy, Inventing, Engineering, and Understanding I/O Devices
- **Honors & Awards:** Student Marshal, University ACM-W Grace Hopper Scholar, Dean's List (Top 20%), Dean's Scholar, Uncommon Hacks: 1st Place in Best Overall Hack and Best IoT Hack (Feb 2019)

Experience

Lyft (Level 5 - Autonomous Vehicles Division)

Palo Alto, CA

Software Engineer Intern

June 2020 – August 2020

- Improved the latency of writing trajectories by 15%
- Created a new gRPC endpoint to associate trajectories with lane sequences in real time, and improved the ease of use, maintenance cost, language support, and dependency injection overhead of previous method
- Designed API schema for the trajectory lane associations, wrote documentation, updated the service runbook, and onboarded customers
- Wrote unit tests and created metric dashboards in Wavefront to monitor API latency and total request load

Databricks

San Francisco, CA

Software Engineer Intern

January 2020 – April 2020

- Developed and designed in-product messaging and in-product tours to increase customer engagement and overall user satisfaction, and released feature for private preview
- Created alerts and metric dashboards to monitor feature behavior in all environments
- Wrote unit and integration tests to run against all future deployments of the web service
- Communicated with Product and Customer Success teams to discuss SOPs and rollout plans

PayPal (Braintree)

Chicago, IL

Software Engineer Intern

June 2019 – August 2019

- Pair programmed with senior engineers to create a new secrets management system, and built public key infrastructure utilized by almost every service in the organization
- Created tools and tests to automate the process of issuing, signing, and deploying public and private SSL certificates, shortening SSL workflow times by over 90%
- Developed monitoring and reporting for secret expiration and activity in our cloud and on-premise environments, significantly reducing risk of application down-time

Medivis

Brooklyn, NY

Software Development Intern

June 2018 – September 2018

- Created a CosmosDB database and designed a cost-efficient schema to store all anatomy part data, improving data access speeds from minutes to seconds
- Built a web platform and REST API for internal teams to add and update anatomy parts, and for clients to access and customize their own anatomy tags

Projects

Destress Cyb.org

EEG Headband, Dragonboard 401c

- Wearable tech that analyzes brain waves and uses computer vision to blur/replace stressors (Feb 2019)
- Created algorithm to determine what combinations of brain wave frequencies indicated stress
- Awarded "Best Overall Hack" and "Best IoT Hack" at UChicago's Uncommon Hacks

Healthy Chicago (Chicago Department of Public Health)

React Native

- Created a mobile app to easily help medical providers look up necessary protocols, procedures, and hotlines for various diseases
- Reduced redundancy and nesting in disease data, reducing number of calls for reads/writes by over 50%

Skills & Activities

Programming Languages: Python, C, JavaScript, HTML, CSS, R, SML, Scala

Tools & Frameworks: Angular, React, Express.js, Node.js, Terraform, Kubernetes, Git, AWS

Activities: Facebook ABCS Program, UChicago Computer Science Core Tutor, ILC: Entrepreneurship, ACM-W