

# Melanie A. Chow

[melaniechow@uchicago.edu](mailto:melaniechow@uchicago.edu) || 917-865-2345 || [melaniechow.github.io](https://melaniechow.github.io)

## 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: 1<sup>st</sup> 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 as
- sociations, 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