

# Allen Cheng

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## EDUCATION

### University of Maryland, College Park

*Bachelor of Science, Computer Science. Bachelor of Science, Mathematics. Minor, Business Analytics. Honors College – University Honors, President's Scholarship*

College Park, MD

Dec 2019

GPA: 3.83/4.00

## WORK

## EXPERIENCE

### Airbnb, Inc.

*Software Engineer Intern*

Seattle, WA

Jun 2019 – Aug 2019

- Designed graph relationship-based features for anti-money laundering machine learning model.
- Implemented end-to-end ETL pipeline to export graph features on daily basis in Airflow. Paved system infrastructure using Spark Scala for iterative future development of additional graph features.
- Measured precision rate for new model features to be 50.0%, up from the existing model precision of 21.5%.

### Lyft, Inc.

*Software Engineer Intern*

San Francisco, CA

Sep 2018 – Dec 2018

- Evaluated quality of third party realtime traffic data as ingested into rideshare ETA traffic pipeline.
- Practiced the data analysis lifecycle of implementing a pipeline in Apache Spark and Flink to ingress realtime data, using a trained machine learning model to score the data, and building a report with interactive visualizations.
- Implemented a Golang library to translate geospatial location data given translation rules sourced from a configuration system.

### Facebook, Inc.

*Software Engineer Intern, Instagram*

New York, NY

Jun 2018 – Aug 2018

*Software Engineer Intern*

Seattle, WA

Sep 2017 – Dec 2017

- Migrated A/B experimentation platform to use a more robust configuration distribution and storage solution.
- Integrated internal infrastructure tooling within Nuclide, an open-source developer environment for web and native mobile development built on top of the Atom text editor, used by 87% of all Facebook developers.
- Initiated CPU profiling and trace collection from Nuclide's users to analyze Nuclide's performance data in production. Built reports and data feeds to drive optimizations for a sleeker UX using pipelines with Python.

### AeroFS

*Software Engineering Intern*

Palo Alto, CA

May 2017 – Aug 2017

*Y Combinator, Andreessen Horowitz backed startup building an enterprise file sync and share solution.*

- Implemented scalable backend services for Amium, a collaborative document-based chat platform that transforms files into real-time activity feeds and conversations. Programming in Go and Java.
- Led the design of the scalable architecture of the data transformation ETL pipeline for Ruby on Rails application.
- Facilitated the analytics collection pipeline and using Elasticsearch to analyze data trends in user behavior using business intelligence to make informed marketing and product decisions.

### University of Maryland – College Park

*Student-Taught Course Facilitator*

College Park, MD

Jan 2018 – Present

*Undergraduate Teaching Assistant*

College Park, MD

Jan 2017 – May 2019

- Designed and taught CMSC389K: Web Development w/ Node.js and CMSC389O: The Coding Interview.
- Synthesized a course curriculum and independently planned all lecture material and assignments.
- Led recitation classes to discuss and reinforce lecture material for CMSC216 – Introduction to Computer Systems.
- Obtained a evaluation rating of 3.92/4.00 from students for “overall effective teacher,” compared to department average of 3.20/4.00.

### Asymmetrik, Ltd.

*Software Engineering Intern*

Annapolis Junction, MD

May 2016 – Jan 2017

- Developed webapp components of *WildFire*, a platform for streaming Twitter analytics with MongoDB, Angular, and Node.js. Configured multi-node Amazon EC2 clusters on AWS with Red Hat Ansible.
- Piloted an ad hoc data analytics system with Apache Zeppelin notebooks utilizing Spark and Elasticsearch.

### The Johns Hopkins University Applied Physics Laboratory

*Software Engineering Intern*

Laurel, MD

Sep 2014 – Aug 2015

- Developed a command line interface in Java for *Socrates*, a system for scalable graph data analytics with parallel processing. Significantly improved developer productivity and its user-friendliness.
- Created a technique for internal analysis of the effectiveness of employee-to-employee interaction within the same department versus within different departments.

## LANGUAGES

*Professional*

Java, Python, Scala

*Proficient*

C, Golang, JavaScript, PHP, Ruby

*Basic*

OCaml, R