## **Allen Cheng**

**EDUCATION** 

University of Maryland, College Park, College Park, MD

Bachelor of Science, Computer Science and Mathematics

Minor, Business Analytics

Honors College - University Honors, President's Scholarship

WORK EXPERIENCE Facebook, Inc.

Sep 2017 - Dec 2017

Seattle, WA

May 2019 GPA: 3.83/4.00

Software Engineering Intern

• Building Nuclide, an open-source developer environment plugin built on top of the Atom text editor.

- Implementing high-volume data-centric software solutions by building report interfaces and data feeds.
- Creating web applications and interfaces primarily using Java and JavaScript.

may 2017 - Present

Software Engineering Intern

Palo Alto, CA

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

- Implementing 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.
- Leading and designing the scalable architecture of the data collection and transformation ETL pipeline for a Ruby on Rails application, including investigating cost-effective solutions and building detailed analysis reports.
- Facilitating the analytics collection pipeline and using Elasticsearch to analyze data trends in user behavior using business intelligence to make informed marketing and product decisions.

Asymmetrik, Ltd. May 2016 – Jan 2017

Software Engineering Intern

Annapolis Junction, MD

- Developed the web app component of *WildFire*, a platform for streaming realtime Twitter analytics using effective MongoDB, AngularJS, and Node.js.
- Piloted an ad hoc data analytics system with the Apache Zeppelin notebook structure, utilizing Spark and Elasticsearch. Generated interactive data visualizations with Scala, R, Python, and SparkSQL.
- Initiated collaboration with the *WildFire* team leads to provide data-informed feedback on new features using statistical reports generated with ggplot2, matplotlib, and Google Charts.
- Configured multi-node Amazon EC2 clusters on AWS with Red Hat Ansible. Managed configuration settings for machine provisioning and software deployment of *WildFire*.
- Participated in the software development life cycle with the Scrum methodology.

## The Johns Hopkins University Applied Physics Laboratory

Sep 2014 - Aug 2015

Large Scale Analytics / Software Engineering Intern

Laurel, MD

- 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. Currently used by department supervisors.
- Performed data scrubbing and cleanup on a database with over four million records.

RELEVANT EXPERIENCE

## Undergraduate Teaching Assistant in Computer Science, University of Maryland

Jan 2017 - May 2017

goo.gl/7rf7uJ

- Led recitation classes to discuss and reinforce lecture material for CMSC216 Introduction to Computer Systems.
- Prepared instructional materials while proof-implementing class projects and proofreading quizzes and exams.
- Obtained a course evaluation rating of 3.92/4.00 from students for "overall effective teacher," compared to the department average of 3.20/4.00.

## CS-RSVP - HTML, CSS, JavaScript

github.com/timothychen01/cs-rsvp

- Event calendar registration system for official use with the Univ. of Maryland CS department for broadcasting and handling undergraduate campus events. Work in progress.
- Constructed with MongoDB and Node.js for backend services and Bootstrap for frontend.
- Continuation of 2<sup>nd</sup> place winning project from the 2015 Daemon Dash hackathon.

PersoniFiler - Java

- Research project to determine collaborative behaviors of company employees by analyzing the metadata of shared filesystems and computing quantitative interactions.
- Calculated vectors for each staff member and used the k-means algorithm to cluster into effective groups.
- Compared clustered groups with the employees' ground truth groups with the rand index evaluation metric.

SKILLS Languages

Professional: Java, JavaScript Proficient: Python, C Basic: Scala, C#, Ruby, OCaml, R, SQL Tools and Technologies

AngularIS Anache Spark D

AngularJS, Apache Spark, Django, Eclipse, Elasticsearch, Git, IntelliJ IDEA, JIRA, MongoDB, Node.js, Pandas