

Allen Cheng

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EDUCATION **University of Maryland, College Park**, College Park, MD May 2019
Bachelor of Science, Computer Science and Mathematics GPA: 3.83/4.00
Minor, Business Analytics
Honors College – University Honors, President’s Scholarship

WORK EXPERIENCE **Facebook, Inc.** Sep 2017 – Dec 2017
Software Engineering Intern Seattle, WA

- 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.
- Created and designed Nuclide interfaces using the React JavaScript library.

AeroFS May 2017 – Aug 2017
Software Engineering Intern Palo Alto, CA
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 collection and transformation ETL pipeline for a Ruby on Rails application, including investigating cost-effective solutions and building detailed analysis reports.
- 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.

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.

RELEVANT EXPERIENCE **Undergraduate Teaching Assistant in Computer Science, University of Maryland** Jan 2017 – May 2017

- 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

- Calendar registration system for official use with the Univ. of Maryland CS department for handling undergraduate campus events. Constructed with MongoDB and Node.js for backend services and Bootstrap for frontend.
- Continuation of 2nd place winning project from the 2015 Daemon Dash hackathon.

PersoniFiler – Java goo.gl/7rf7uJ

- 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	Tools and Technologies
<i>Professional:</i> Java, JavaScript, Python	AngularJS, Apache Spark, Django, Eclipse,
<i>Proficient:</i> C, Ruby	Elasticsearch, Git, IntelliJ IDEA, JIRA,
<i>Basic:</i> C#, OCaml, R, Scala, SQL	Mercurial, MongoDB, Node.js, Pandas