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
Honors College – University Honors, President's Scholarship

WORK EXPERIENCE

Facebook, Inc. — exp. Sep 2017 – Dec 2017
Software Engineering Intern — Seattle, WA
- Will be implementing high-volume data-centric software solutions by building report interfaces and data feeds.
- Will be creating web applications and interfaces primarily using C++ and Java.

AeroFS — May 2017 – Aug 2017
Software Engineering Intern — Palo Alto, CA
Venture-capital 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.
- Facilitating the analytics collection pipeline. 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.
- Wrote JUnit tests for *Socrates* algorithms and analytics operations.

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
- 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 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
Professional: Java, JavaScript
Proficient: Python, C
Basic: Scala, C#, Ruby, OCaml, R, SQL

Tools and Technologies
AngularJS, Elasticsearch, Apache Spark, Git, Eclipse, IntelliJ IDEA, JIRA