Ryan Siu

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EDUCATION

UNIVERSITY OF MICHIGAN | BSE in Computer Science + Statistics Minor
September 2018 – May 2022 | Ann Arbor, MI
- **GPA:** 3.9 / 4.0
- **Coursework:** Data Structures and Algorithms • Machine Learning • Computer Security • Entrepreneurial Design: IoT • Foundations of CS • Computer Organization • Discrete Math • Intro to Probability

EXPERIENCE

TWO SIGMA | Software Engineering Intern
May 2019 – August 2019 | Houston, TX
- Developed a cash management platform capable of handling billions of dollars using a service-oriented architecture, allowing users to view and execute money market fund trades. Created services in Java using the OpenAPI workflow. Created React UI to interface with the API.
- Implemented algorithms to allocate cash to money market funds. Achieved 6-10x faster runtime compared to legacy algorithms by optimizing number of service calls and persisting data. Incorporated validation checks throughout the algorithms to check that allocations were reasonable.

U-M INFORMATION & TECHNOLOGY SERVICES | Developer
February 2019 – Present | Ann Arbor, MI
- Developed an object-oriented application using the DTO/DAO design structure in Python3 to generate spreadsheets for the U-M Office of Budget & Planning to project and determine student tuition
- Wrote classes to encapsulate, format, and render spreadsheet formulas using Google Sheets API. Called internal APIs to populate the spreadsheets with tuition data.

GRADEGUIDE (THE MICHIGAN DAILY) | Backend Developer
September 2018 – Present | Ann Arbor, MI
- Delegated tasks to team of 5 members to build gradeguide.com as backend lead
- Replaced all client-side calculations with a backend Python script to precalculate course metrics, improving page load times
- Implemented Flask API routes to handle user logins using a Google Sign-In integration, and designed SQL database tables to store these users

STUYVESANT HONOR SOCIETY | VP of Web Development
June 2016 – May 2018 | New York, NY
- Developed new features, such as online essay editing, for SHS's website; students submitted essays via Google Drive to the website and tutors accessed these essays and gave feedback. Integrated with Google Drive API and OAuth.
- Coordinated Parent Teacher Conferences by assigning 300 volunteers to teachers based on student/teacher requests. Implemented a variation of the stable marriage algorithm as a Python script.

CHRON-X | Personal Project
October 2018 – December 2018 | Ann Arbor, MI
- Designed and built a DIY Arduino-based smartwatch with an operating system written in C++. Receives notifications from smartphones over Bluetooth. (Blog post: medium.com/@ryansiu/how-to-make-your-own-smartwatch-35ff8306c160)

SKILLS

LANGUAGES
Proficient: Python • C++ • Java
Familiar: C • Javascript • R

SOFTWARE DEVELOPMENT
Proficient: Flask • React.js • Git • REST APIs • Agile Development • Ubuntu • Arduino
Familiar: SQL • Jupyter Notebook • OpenAPI • Android • Bash • LaTeX

ACCOMPLISHMENTS

2019   HackMIT: Best Use of Nasdaq Datasets (3rd place)
2019   Two Sigma's Halite III Silver Tier (#838/4014)
2017   FIRST Tech Challenge NYC Regionals Winners (Stuy Fission 310)