Ryan Siu

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EDUCATION

UNIVERSITY OF MICHIGAN
BSE in Computer Science
September 2018 – December 2021
Ann Arbor, MI
University Honors
GPA: 3.9 / 4.0

STUYVESANT HIGH SCHOOL
June 2018 | New York, NY
Stuyvesant Honor Society
GPA: 95.7 / 100

COURSEWORK

UNDERGRADUATE
Data Structures and Algorithms
Discrete Math
Linear Algebra
Entrepreneurial Design: IoT
Intro to Autonomous Electronics

HIGH SCHOOL
AP Computer Science
Software Development
Systems Level Programming
Computer Graphics

SKILLS

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

SOFTWARE DEVELOPMENT
Proficient:
Flask • React.js
Git • Terminal • Agile Development
Ubuntu • Arduino • Raspberry Pi
Familiar:
SQL • Jupyter Notebook
OpenAPI • Android • LaTeX

ACCOMPLISHMENTS

2019   Halite III Silver Tier *(#838/4014)*
2018   National Merit Scholar
2017   FTC NYC Regionals Winners
        (FIRST Tech Challenge: Stuy Fission 310)
2016   FTC NYC Regionals Winners

EXPERIENCE

TWO SIGMA | Software Engineering Intern
May 2019 – August 2019 | Houston, TX
- Developed a cash management platform handling billions of dollars with a service-oriented architecture, allowing users to view and execute Money Market Fund trades. Created services in Java using the OpenAPI workflow. Designed 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 algorithm 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
- Retrieved and used data from Kuali APIs in spreadsheet formulas. Wrote classes to encapsulate, format, and render formulas using Google Sheets API.

GRADEGUIDE (THE MICHIGAN DAILY) | Senior Developer
September 2018 – Present | Ann Arbor, MI
- Delegated tasks to team of 5 members to develop gradeguide.com
- Wrote Python scripts to add U-M course data into a SQL database, which was used by front-end engineers to display on the website
- Replaced all client-side calculations with a server-side Python script to precalculate course metrics, improving page load times

MORGAN STANLEY | Business Analyst Intern
July 2018 – August 2018 | New York, NY
- Redesigned an obsolete web application UI with Angular and Material Design to handle review of segregation of duties (SoD) inside the firm, allowing reviewers to more intuitively navigate the UI

STUYVESANT HONOR SOCIETY | VP of Web Development
June 2016 – May 2018 | New York, NY
- Developed new features, such as online essay editing, for the organization's website; online essay editing was implemented using Google Drive API and OAuth, and allowed tutors to make comments on submitted essays
- Assigned tasks to 10-person committee to maintain and update the website
- 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.

PROJECTS

CHRON-X   October 2018 – December 2018
- github.com/siuryan/watch
- medium.com/@ryansiu/how-to-make-your-own-smartwatch-35ff8306c160

DIY smartwatch built using an Arduino, with an operating system coded in C++. Can receive notifications from phone after connecting to the Android app via Bluetooth.