

# Victor Siu · Software Engineer

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## Education

**University of California, San Diego / Computer Science**

September 2021 - May 2024

- GPA : 4.0
- Organizations: Association for Computing Machinery (ACM), Students Who Engage, Learn & Lead (SWELL)

## Experience

**Gordian Software / Software Intern**

June 2021 - August 2021, Remote

- Designed and implemented 4 command-line interfaces using Python to get data from different airline APIs, and transformed that data from XML to JSON using lxml.etree and jsonify.
- Analyzed airline-specific price irregularities and developed a library using Python to correct them, resulting in prices accurate down to the nearest half-dollar.
- Developed an automated testing suite with Pytest to aid in TDD for the rewriting of an internal library, reducing the rewriting time by nearly a week.

**Google Mentorship Program / Full Stack Developer**

December 2019 - June 2020, New York, NY

- Managed the codebase using Github to facilitate collaboration and follow the software development life-cycle
- Created Flask backend that scrapes car-dealing websites for car data then places it into a SQLite database
- Utilized a React frontend to dynamically rank cars on the market using user-selected parameters.

**The Stuyvesant Spectator / Lead Full Stack Developer**

Jan 2019 - Jan 2021, New York, NY

- Redesigned parts of the main website using React to make a more fluid user experience, such as a faster-loading search bar and a less cluttered footer.
- Created a new Ruby on Rails API endpoint in the backend, then used React in the content management system to facilitate the addition of new author/illustrator profiles.
- Monitored the server hosted on AWS and limited server downtime to less than an hour a month.

## Projects

**Student Toolkit / React + Express all-in-one app for UCSD students**

Implemented features such as calendars and to-do lists. Data is hashed and stored in a MongoDB database.

**Graphics Engine / Python Library for the animation of basic 2D and 3D shapes**

Researched and implemented line and shape drawing algorithms to efficiently create short gifs and images.

**Bashenger / C app for client-server communication**

Utilized pipes in C to create a local communication network. Messages are end-to-end encrypted for security.

**Cuisine-Interpreter / A tensorflow-based simulation of different sorting algorithms**

Researched and implemented popular sorting algorithms, then animated them using Python's Turtle library.

**Attendance-scanner / Flask app for attendance taking**

Moved a paper-based system onto the web. Utilized Google OAuth and Google Cloud for storage and server management.

## Skills

**Languages:**

Proficient: Python, Javascript  
Familiar: C, Java

**Software Development:**

Proficient: Git, Flask, Pytest, React.js, REST APIs, Unix, Linux  
Familiar: Tensorflow, AWS, Django