

Sam Liu

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Education

Nassau Community College

Sep. 2019 – Dec. 2021

Associate of Science in Computer Science(GPA:4.0)

New York, NY

- **Coursework:** Computer Science I/II, Data Structures, Computer Architecture and Organization, C Programming Language, Discrete Mathematical Structures

Projects

Odin Book | *Node.js, Express, MongoDB, React*

Dec. 2021

- Developed an interactive social web app with **MERN** that allows users to post, comment, like, search, and chat through the website.
- Accomplished **RESTful** APIs, which offer different endpoints for the front-end app to interact using standard HTTP protocol methods and integrate different layers to process and save data.
- Created an interactive UI built by **React** utilizing data and page rendering for a better browsing experience for users.
- Delivered a more flexible way by implementing **JWT** for the authorization process to secure data transition, modification, and storage.
- Defined **Mongoose** schemas to create a document data structure for building the inner connection between data types. Offered a convenient way to query data by accessing references within schemas.
- Achieved pagination to speed the data loading performance for users 80%, which incrementally loads data instead of overloading the user's browser with massive data.
- Assembled a real-time chat and notification system for message delivery using **socket.io**.
- Implemented responsive designs that are adaptive to device-width.

Instagram Clone | *React, Firebase, HTML, CSS*

2021

- Developed an Instagram Clone with almost a similar UI and essential features.
- Utilized **passport.js** strategies in user request and response processes for handling user's authorization.
- Designed and implemented **Firebase** data structure to accomplish post, comment, user authorization, and chat features for better scaling.
- Applied an image upload mechanism to upload images for avatar and post attachments.
- Integrated with Firebase API to support real-time chat for users. Chose a better scalable database design to optimize the message history query process, speeding up the process and saving the resources. Instead of looping the whole message history, grouping each chatting thread offers a better scalable approach.

The Odin Project web page | *HTML, SCSS, CSS*

2021

- Established a basic grid-based CSS framework.
- Implemented the framework to clone a page of The Odin Project.

TNW web page clone | *HTML, CSS*

2021

- Cloned a web page of TNW completely.
- Organized DOM elements with grid and flexbox.

Experience

Premium Pharmacy

Apr. 2017 – Present

Pharmacy Technician

New York, NY

- Established solid communication between patients and doctors. Helped them satisfy their needs and provide the best service to our customers.
- If any error or mistake happens in any process, tracking it down and fixing it as soon as possible is our priority.

Technical Skills

Languages: JavaScript, HTML, CSS, Java, C, Python

Technologies/Frameworks/Databases: React, Express, Node.js, Linux, Git, MongoDB, Firebase