

SIYU CHEN

Gainesville, FL 32605 | (267) 401-5179 | siyuchen.dev@gmail.com

<https://siyuchen.dev/> | <https://github.com/syuChen1> | <https://www.linkedin.com/in/siyu-chen-6a7a741b4/>

Education

Bachelor of Science: Computer Science

Expected in May 2022

University of Florida - Gainesville, FL

- **GPA: 3.8 / 4.0**
- President's Honor Roll: Spring 2019 | Dean's List: Fall 2019, Fall 2020, Spring 2021
- Relevant Coursework: Software Engineering, SW testing Continuous Delivery, Database Systems, Operating System, Computer Network, Data Structures & Algorithms

Experience

Undergraduate Research Assistant / Development Lead

Feb 2021 - Current

University Of Florida – Gainesville, FL

- Led the development team to build a Cloud Arduino IDE to support 200+ elementary school students in building computational models for science experiments. <https://github.com/STEM-C/CaSMM>
- Built and maintained app backend with **PostgreSQL** and **Strapi** that act as headless content management system to allow better programming flexibility and scalability.
- Implemented a service to handle Arduino code compilation and used **Redis/Bull** to allow **pub/sub** communication between the application and the service.
- Managed automatic pipeline that creates Review App and deploys to Staging and Production environment on **Heroku** with **GitHub Action**.

Personal Projects

Microtick <https://github.com/syuChen1/MicroTick>

July 2021

- Developed a full-stack web platform that allows users to buy and sell tickets with **TypeScript**.
- Built the backend with **event-driven microservices** architecture with **Node.js** and **NATS-Streaming** to achieve **loose coupling, asynchronous** communication without blocking and **easy scaling**.
- Utilized Singleton design pattern for the event bus implementation inside each service to ensure single instance access within global scope.
- Built Container Orchestration with **Docker** and **Kubernetes** to help manage pod life cycle, autoscaling and load distribution within microservices.
- Designed a server-side rendering client with **React** and **Next.js** to improve page load time and maximize search engine optimization.
- Utilized browser **cookie** to pass **JWT** signed user info from client to microservices that do not have access to the auth database to allow user authentication.
- Devised **GitHub Action** CI/CD workflow to build, test and deploy each service automatically to **Digital Ocean** on branch merge.

Shoppingfy <https://github.com/syuChen1/Shoppingfy-MERN>

May 2021

- Created a **MERN** stack web application with full-functional eCommerce frontend, PayPal integration and an Admin page to manage user and products.
- Built **Node.js** backend that creates RESTful API for CRUD operations with Express and Mongoose.
- Utilized **React** and **Redux** to build a standardized, modular and logical front-end that is easy to test and enables useful features like time-travel debugging.
- Containerized with **Docker** and deployed to **AWS** Elastic Beanstalk through **Travis CI** on branch merge.

Skills

Programming Languages: JavaScript, TypeScript, C++, Java, Python, HTML, CSS

Web Development: Node.js, Express, React, Redux, Next.js, MongoDB, PostgreSQL

Technologies/Tools: Git, Docker, Kubernetes, CI/CD, Redis, Heroku, Linux, AWS(Cloud Practitioner)