Samuel Chan

Software Engineer

Personal Info

Address
Durham, NC | Ellicott City, MD

Phone
(410) 428-2378

E-mail
samuel.chan@duke.edu

GitHub
github.com/SamuelChan123/

LinkedIn
linkedin.com/in/samuelpchan/

Programming Skills

- Java
- Data Structures & Algorithms
- Object-Oriented Design
- Python
- Javascript
- PostgreSQL
- APIs
- C

Organizations

***HackDuke* Planning Team Co-Director 2019, Outreach/Logistics Lead 2018:**
- Organized the annual Code for Good collegiate hackathon, drawing 600+ students from across the nation to ideate about 140 projects that aim to positively impact our social environment
- Collaborated with 25+ teammates to reach out to 20 companies and secure a total of over $40k in sponsorship, coordinate team events, manage logistics, speak directly with corporate representatives and Duke University administration
- Directly reached out to and coordinated with total of 10+ professors, 30+ company recruiters and speakers, implemented series of 10+ workshops before and during the hackathon to educate 200+ students about technical and out-of-classroom skills

***The Cube* Innovation & Entrepreneurship Selective Living Group**

***Duke Effective Altruism* (Arete Fellowship)**

Work Experiences

2019-05 - 2019

Software Engineering Intern

Garmin

- Enhanced the company's Jenkins CI/CD environment; improved the integration between Jenkins and the OpenStack cloud in order to more dynamically create/destroy ephemeral build nodes by implementing REST endpoints for new Jenkins plugins
- Built out a Rebalancer python application that utilizes Jenkins API, OpenStack API, and the created REST end points to optimize the use and reallocation of resources between servers, vastly increased efficiency of software dev lifecycle for multiple business segments to better utilize the underlying compute hardware

2018-05 - 2019-02

Software Engineering Intern

G2, Inc. (Now HII)

- Paved the way for CI/CD pipeline to be incorporated into project testing and deployment. Accelerated the company's DevOps model by application to automating workstation environments (vm creation in the cloud), test automation, and streamlining the software dev process. Worked over the summer and remotely during the semester

2015-08 - 2017-05

Software Intern

Johns Hopkins University Applied Physics Lab

- Overhauled several coding classes and tested retrieval of telemetry packets from simulated testbeds for Solar Probe Plus (now Parker Solar Probe), create log parser to extract useful information from test telemetry packets that impacted 10+ JHUAPL staff in the section

Education

2017-08 - 2021-05

Duke University, B.S. Computer Science, Minor in Political Science

Cumulative GPA: 3.725/4.0, Dean's List
Relevant Coursework: Data Structures & Algorithms (CS 201), Discrete Math for Computer Science (CS 230), Computer Architecture (CS 250), Operating Systems (CS 310), Database Systems (CS 316), Computer Implementation & Design (CS 307)

Personal Projects

2019

HitchRide

APIs, AWS Deployment, React

- Built a full stack web app that provides a ride-sharing network of students for students. Connects students with each other on the same ride, exchanges emails.
- Axios.js for HTTP requests between front-end (React) and back-end (Postgres/Python), deployed in AWS EC2 instance, utilized an Amazon RDS database
- Google Maps/Leaflet APIs to display locations and map information to user

2018 - 2019

ResearchHub

Databases, Front-End Design, GCP Deployment

- Built a web app that connects students to research opportunities by providing them up to date information that they need in order to determine which lab to research in. Developed a query system that would allow students to look for projects that have been posted, or look for Duke faculty to directly contact.
- React/Javascript was used on the front end, python flask + SQLAlchemy + PostgreSQL on the backend running on a virtual machine deployed through GCP

2019

JavaFXMonopoly

Object-Oriented Design, git, MVC Architecture

- Fully constructed a JavaFX-based data-driven game of Monopoly and several variations and themes that allows users to select type of game, save/load different game configurations, and play a completely functional and aesthetically pleasing game.
- Employed a Model-View-Controller architectural pattern and utilized OOP design principles such as abstraction, encapsulation, inheritance and polymorphism, took initiative on setting up git and ensuring commits, merging, and branches were appropriately made.

2019

BikeShare WebApp

Databases, Data Analysis and Visualization

- Completed a web app using Jekyll in Github Pages that analyzes and visualizes bike share data from the city of Los Angeles
- Ran SQL queries against a PostgreSQL 10 SQL database constructed with a widely available online data set in a .csv format