

Siddhesh Sawant

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EDUCATION

SIMON FRASER UNIVERSITY

BASC IN COMPUTER ENGINEERING

Expected Graduation: Apr 2024

Burnaby, BC

LINKS

Portfolio:// [ssawant0202](#)

LinkedIn:// [ssawant0202](#)

Github:// [ssawant0202](#)

CodeSignal:// [ssawant0202](#)

COURSEWORK

UNDERGRADUATE

- Object-Oriented Programming
- Data Structures & Algorithms
- Embedded Systems
- Full Stack Applications
- AI

SKILLS

PROGRAMMING

- C/C++
- Python 14
- RISC V
- Java
- Node.js
- React
- HTML
- JavaScript
- VHDL
- Assembly
- Matlab

HARDWARE

- PCB'S
- Arduino UNO/Nano
- Oscilloscopes
- Function Generators
- Op-Amps
- Soldering

TECHNICAL SKILLS

- Testing and Debugging
- Software Development
- Data structures and algorithms
- Object-Oriented Design

OPERATING SYSTEMS

- Linux
- Windows
- MAC OS

EXPERIENCE

FAISAL LABS | DATA QA

Jan 2020 - Apr 2020 | Burnaby, BC

- Did data segmentation on CT scans of spine and Retinal scans
- Wrote python scripts to automate the work flow using flow diagrams
- Developed protocol documentation for new work flow process
- Helped the team organize bugs by implementing bug tracker application
- Successfully documented every protocol which is still used to date

IT TECHNICIAN | SIMON FRASER UNIVERSITY

May 2019 - Aug 2020 | Burnaby, BC

- Provided desk and remote support to university staff and students for devices such as laptops, PC's, phones, printers and projectors

PROJECTS

CLOUDNATIVEJS - NODESERVER |SERVER SIDE LOGIC | JAVASCRIPT

- Created an Express.js app using the Express Generator: Deployed at scaling using **Docker**, **Helm** and **Kubernetes**
- Added enhanced capabilities to the app like health-checks, automatic restart, metrics (using OpenTracing and Prometheus)

MERN STACK - BUG TRACKER |WEB DEVELOPMENT | JAVASCRIPT

- Developed a full stack application that kept track of bugs
- Used MongoDB Atlas as database, Express and Node to implement server side logic and React to build user interface;
- Added enhanced capabilities such as security authentication and admin users to edit/delete bug report

FTP Y-MODEM PROTOCOL |EMBEDDED SYSTEMS | C++

- Debugged and corrected the functionality of a multi-threaded socket-pair application. The thread had different real time priorities. Sender data was passed through a medium thread which corrupted, dropped and injected random characters upon receiving
- Implemented a CRC16 checker so receiver can request same block of 128 bytes if CRC's didn't match.
- Added dump glitches function to dump glitched characters(noise) stored in socket pair before the last byte was sent
- Successfully verified the functionality of the terminal program by sending 100 files and received an A for the course

ARTIFICIAL INTELLIGENCE |AFFECTIVE COMPUTING| Python

- Generated artificial facial expressions based on gender, race and environment. Led a group of 3 to train the AI model producing appropriate Action Units (AUs)
- Collected wild and premade datasets from the web and trained the AI using Gaussian Mixture Model to separate the AU clusters. Verified the accuracy using K fold cross-validation

RENTAL APPLICATION |ANDROID APP | JAVA

- Developed a Java Application with user friendly UI where users could rent/sell houses
- Successfully added security authentication and connected to firebase database