Sanid Singhal

Electrical Engineering Student (2nd Year)

An engineering student aspiring to solve critical and complex engineering problems as a young and dynamic thinker for growth and prosperity. A certified graduate of the Lighthouse Labs Web Development course with good experience in application based, web based and object oriented programming with extensive knowledge of data structures and algorithms. Acquired intermediate design skills in Boolean Logic, FPGA, Verilog and ARM assembly language. Also familiar with Microsoft Azure and machine learning concepts.

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EDUCATION

BASc - Electrical Engineering
University of British Columbia
3 of 8 academic terms completed
Expected graduation: May 2022

TECHNICAL SKILLS

Electrical Equipment
- Arduino Kit
- Oscilloscope
- Signal Generator
- DeSoC-1
- FPGA

Computer/Software
- C, C++
- Python
- General Data Structures and Algorithms
- HTML, CSS, Javascript, JQuery
- Ruby, Sinatra
- Microsoft Azure
- Swift
- ARM Assembly Language
- Verilog
- Quartus
- MATLAB
- Git
- Solid Works
- Microsoft Office

CERTIFICATIONS/AFFILIATIONS

- Certification in Lighthouse Labs Web-Development Course
- IEEE membership

WORK EXPERIENCE

Assistant Programming Instructor
Western Canada Hunan Association
June - August 2018 — *Calgary, AB*
- Taught basic and advanced Python computer programming language to children between the ages of 12 to 17.

Production Assistant
Amvic Systems Manufacturing
May 2018 — *Calgary, AB*
- Understood and acted upon the manufacturing processes needed to create insulated concrete foams used to build the foundations of homes and structures.

KEY TECHNICAL PROJECTS

Hairable project, nwHacks 2019
Jan 2019
- Designed an app which recommends hairstyles for people based on facial features. Used Swift as the front end development tool and Microsoft Azure for the machine learning software logic.

Lunar Resource Extraction project, UBC Mars Colony Design Team
Jan 2019 to present
- Working as an Electrical Engineer team member focusing on resource extraction in space of Helium-3 for Nuclear Fusion. Currently working on the preliminary design of robotic probe.

Machine Learning and AI projects, UBC Turing Club
Jan 2019 to present
- Currently working on a chatbot project focused around natural language processing and neural network concepts using various Python libraries.

LCD Alarm Clock Micro-Controller
Jan 2019
- Used Assembly language (Atmel AT89LP51RC2 processor) to program a micro-controller system connected to a LCD screen and LED lights, and a speaker. Also implemented an alarm clock using interrupts (ISA).

CPU Design(RISC machine) project
Nov 2018
- Created a functional CPU containing multiple 8 bit registers and an arithmetic logic unit using tools such as RISC instruction set.
- Utilized Verilog , Quartus and ModelSim as the design tools to aid in the development and testing of the application. Programmed and tested on the Intel De1- Soc board.

Simons/Snake Game
July 2018
- Developed a memory game using a combination of Objective C and Data Acquisition simulator (DAQ).
- Developed Classic snake game on the web using Javascript.

Personal Website
July 2018
- Built a professional website from scratch using web development tools and languages such as HTML, CSS and Javascript.

Finstagram Web Application
June 2018
- Designed a spinoff demo version of Instagram utilizing HTML, CSS, Ruby and Sinatra and SQL in the development of the application. Conceptualized the UI/UX design of the application with modern user interface with login, signup and uploading images capabilities in a very Instragram-esque layout.