Sanid Singhal

Electrical Engineering Student (3rd Year)

An engineering student aspiring to solve critical and complex engineering problems as a dynamic thinker for growth and prosperity. Have good experience in application based, web based and object oriented programming with extensive knowledge of data structures and algorithms. I have successfully completed Machine Learning Course by Stanford University on Coursera in June 2019.I have gained good knowledge of Supervised learning (linear regression, logistic regression algorithms, support vector machines, kernels, neural networks) and Unsupervised learning (clustering, dimensionality reduction, recommender systems, deep learning) in machine learning domain including developing programs using Python and associated machine learning libraries. I have also acquired intermediate design skills in Boolean Logic, FPGA, and Verilog and ARM assembly language. Also familiar with Microsoft Azure, Firebase, Flutter.

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EDUCATION

BASc - Electrical Engineering
University of British Columbia
4 of 8 academic terms completed
Expected graduation: May 2021

TECHNICAL SKILLS

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

ter/Software
- C, C++,Java
- Python (Sklearn, Pandas, NumPy,Tensorflow, Keras)
- Machine Learning
- Data Structures and Algorithms
- HTML, CSS, Javascript, JQuery
- Ruby, Sinatra
- Microsoft Azure
- Firebase
- Flutter
- Swift
- ARM Assembly Language
- Verilog
- Quartus
- MATLAB

CERTIFICATES/AFILIATIONS

- **Machine Learning by Stanford University on Coursera Certificate** <Link>
- Certification in Lighthouse Labs Web-Development Course <Link>
- 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

Wireless Coin Picking Robot
Apr 2019
- Programmed and developed the entire software framework of an autonomous coin picking robot using MSP430 micro controller and embedded C.
- Implemented features such wireless remote control using Raspberry PI and a camera for coin picking recognition using computer vision (OpenCV in Python).

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.

AEye project, XdHacks 2019
Jan 2019
- Designed an app designed to give descriptive information to a blind person's surroundings with an integrated voice UI. Used Flutter and Firebase for developing the application.

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. Also developed main website for the project.

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.

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.