sanid64@gmail.com
403-891-7977
https://www.linkedin.com/in/sanids/
https://github.com/sanids
www.sanids.ga

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. I have a solid foundation in object oriented programming (Java, C++) with extensive knowledge of data structures and algorithms as well as established experience in full stack web development (MongoDB, Node.js, React, Express.js). I have successfully completed courses such as Machine Learning by Stanford University, Machine Learning A-Z: Hands on Python and R in Data Science, Modern Deep Learning and Advanced computer vision. I have gained good foundational knowledge of Supervised learning (linear regression, logistic regression algorithms, support vector machines, kernels), Unsupervised learning (clustering, dimensionality reduction, recommender systems) and Deep Learning (artificial neural networks, convolutional neural networks, recurrent neural networks, applications in computer vision and natural language processing) in the machine learning domain including developing programs using Python and MATLAB using associated machine learning libraries. Solid foundation in firmware and low level design (SystemVerilog, FPGA, Assembly).

EDUCATION

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

TECHNICAL SKILLS

High Level Programming
Python, Java, C, C++, C#
Data Structures and Algorithms
Object Oriented Design

Machine Learning | Data Science
ANNs, CNNS, NLP, Computer Vision, ML Models, Ensemble Learning, Transfer Learning
Pandas, Numpy
Tensorflow (Keras), Pytorch, MXNet, CNTK, Sci-Kit Learn

Full Stack Development
HTML, CSS Javascript, Node.js, React, Express.js, MongoDB
Version Control (Git) | Agile/Scrum

CERTIFICATES/AFILIATIONS

- **Machine Learning: Stanford University <Link>**
- **Modern Deep Learning In Python <Link>**
- **Machine Learning A-Z: Hands on Python <Link>**
- **Node and React: Full Stack Development (Currently completing)**
- **Deep Learning: Advanced Computer Vision <Link>**
- **Lighthouse Labs: Web Development <Link>**
- **MIT: Intro to CS**

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

Machine Learning and Software Developer, UBC Launch Pad
Sept 2019 - Present
- Key member of the largest university software engineering team in Western Canada
- Responsible for creating deep machine learning models and transfer learning applied to NLP and voice diarization
- Managing and developing full stack applications

Machine Learning | Deep Learning | Data Science Assignments
June - Aug 2019
- Applied Supervised and Unsupervised Learning, Principal Component Analysis and Deep Learning models (CNNs and ANNs) in both Python and MATLAB affiliated with Coursera and Udemy courses.
- Used frameworks and libraries (PyTorch, TensorFlow, Sci-Kit, CNTK, MXNet) to create and apply neural networks and ML models (Naïve Bayes, Regression, SVM's, Trees, Ensemble Learning, etc.)

Wireless Coin Picking Robot (Embedded Software Systems)
Apr 2019
- Programmed and developed the entire software framework of an autonomous coin picking robot using MSP430 micro controller 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.

Tech Lead, UBC Mars Colony Design Team
Jan 2019 - Sept 2019
- 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.

RISC Machine (Firmware and FPGA design)
Nov 2018
- Created a functional CPU containing multiple 8 bit registers and an arithmetic logic unit supporting a RISC instruction set using SystemVerilog, Quartus and ModelSim on the Intel FPGA board

Finstagram Web Application
June 2018
- Project affiliated with Lighthouse Labs involving developing a fullstack demo of Instagram (HTML, CSS, JavaScript Ruby, Sinatra)