

Sunny Nagam

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📄 github.com/SunnyNagam

SKILLS

- Python
- Keras/Tensorflow
- HTML5/CSS/JavaScript
- Java
- Unity3D
- C++
- GitHub
- REST APIs
- MySQL

EDUCATION

UNIVERSITY OF CALGARY

B.Sc. in Software Engineering

Expected Graduation Date: 2020

GPA: 3.4

EXPERIENCE

HOTCHKISS BRAIN INSTITUTE

Machine Learning Engineer Intern

May 2018 – September 2018

- Used Python and Tensorflow to build multiple neural network architectures including Convolutional Residual and Generative Adversarial Networks to detect multiple sclerosis in MRI scans of the brain.
- Improved model accuracy by 15%+ by implementing new input format and training regiment.
- Worked with a team of other developers to efficiently develop and test image processing software.

COMPUTER SCIENCE CLUB

Co-Founder and Co-Manager

Sept 2015 – June 2016

- Utilized leadership and team working skills to assist in development of computer games and building of arcade machine
- Taught and instructed club members during lunch hours to program in Java
- Supervised and helped organize club schedule and planned events

PROJECTS

GRAVITY DASH

Unity/C# Mobile Game

- **Unity** and **C#** based game developed for iOS and Android.
- User interface and Physics engine developed and written in **C#**

3D POOL

Java Based 3D Desktop Game

- **Java** based language “processing” creates a 3D playable pool game with camera control and 3D modelling created with linear algebra.
- Utilized vector based linear algebra to create physics engine and collision system.

HANGOUTS DATA ANALYZER

Python Data Miner Script and Visualizer

- **Python** parses JSON data downloaded from Google Hangouts message archives.
- Graphs to visualize individual participation and message frequency using **Plot.ly**.

NEURAL DIGIT READER

Java Based Machine Learning Program

- **Java** program utilizes machine learning formulas to recognize handwritten numbers.
- Uses Convolutional Neural Networks to recognize writing drawn on custom built GUI.

JOKE TWEET BOT

Twitter/Reddit API Based Web Bot

- **Python** script which integrates Twitter and Reddit REST API to mine for jokes and repost on Twitter.
- Uses **OAuth 2.0** authorization framework.

ARRAY VISUALIZER

Java Visualization Application

- **Java** visualizes popular sorting algorithms in a colorful simulation for educational purposes.
- Utilizes multi-threading to allow more advanced GUI input and user control.

Additional projects can be found at: github.com/SunnyNagam

AWARDS

- 1st place in Synopsys Calgary Collegiate Programming Contest
- 2nd place in University of Calgary's Competitive Programming club leaderboard
- Western Canada High School Student in Technology Award
- 2nd place in Alberta for Waterloo's Canada Computing Completion
- Keith Yu Memorial Scholarship for Computer Studies