# Animesh Soni



#### **Education**

**University at Buffalo**, The State University of New York Bachelor of Science, **Computer Science** | Minor: **Mathematics** Honors Scholar | **Dean's List** 

Anticipated Dec 2019 **GPA - 3.91/4.00** 

#### **Technical Skills**

Languages: Python, Java, C++, Processing, SML, MATLAB, QML

Platforms: Windows, Android, Linux

Tools: Unity, Android Studio, Visual Studio, QtCreator, git, Spim

#### **Experience**

#### Ford Motor Company | Software Engineer Research Intern

My 2019 - Aug 2019

- Developed an Android App for testing and presenting an onboard predictive algorithm.
- Implemented an adaptive vehicle feature on the SYNC infotainment codebase using C++, QML and QT Remote Objects.
- Created a MATLAB app to display and interact with various components of driving data from a vehicle.

#### Computer Science & Engineering UB | Teaching Assistant

0	Algorithm Analysis and Design	Aug 2019 – Present
0	Software Engineering	Aug 2019 – Present
0	Theory of Internet	Aug 2017 – Present
0	Discrete Structures	Jan 2019 – May 2019
0	Computer Programming	Jan 2018 – May 2018

- Hold office hours and teach course material in recitations to approximately 30 students.
- Lead discussion sessions and evaluate student projects, labs and other assessments for over 180 students.

#### Campus Living UB | Resident Advisor

Aug 2018 – Present

- Serve as a role model to about 600 students, schedule and hold individual meetings.
- Resolve conflicts and host bi-weekly programs to build a strong community in the residence hall.

University Honors College | Student Assistant

Jan 2018 - May 2019

- Perform administrative and time sensitive tasks related to organization and communication.

#### **Projects**

#### Student MIPS Instruction Program | Python and MIPS

Feb 2019 - May 2019

- $\hbox{-} Created a Code Academy like software which can be used to learn MIPS Assembly Language, using tkinter module for GUI. \\$
- Worked in a group and used agile version control, scrum and unit testing for development.

#### Digit Reader Neural Network | Python

Apr 2019

- Created a neural network that reads images containing hand-written numbers and classifies them as digits from 0-9.
- Used MNIST dataset to train, Quick Draw dataset to tune hyper-parameters and TensorFlow library to evaluate results.

### 3D Space Shooter Game | Unity and C# $\,$

Oct 2018

- Created a top down arcade style space shooter game using Unity for development and Visual Studio for C# scripting.
- Implemented object-oriented design to make the player game object move, shoot and interact with other objects in the scene.

#### Interpreter | Python and SML

Feb 2018 – Apr 2018

- Constructed an interpreter, which could execute a program line by line and perform logical operations on different data types.
- Interpreter used varied scoping, iterated on data structures and executed functions with restricted scope.

## Crowd Tracker Heat Map | $\mathbf{HTML}$ and $\mathbf{JavaScript}$

Mar 2018

- Worked on a web application in a group of 3 for Dandy Hacks using HTML, CSS, JavaScript and google maps API.
- Tracker tracked the number of people at a certain location and produced live heat maps for the density.

# Step Counting Application | **Android Studio and Java**- Developed an android app for UB Hacking using the Android Studio.

Nov 2017

- Made the foundation for a step counter which was then used by a professor for his research on IoT in Sports.

# HTML Validator | C++

Oct 2017

- Built a quality assurance program to check html files for syntax errors per W3C standards.
- Validator converted HTML file into a DOM tree and verified all the tags and their order.

#### Fractal Generator | Java

Jan 2017 - May 2017

- Created an application that generated fractals and used multi-threading to improve the performance by 15%.

#### **Awards**