

# Brian Scott Sukhnandan

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## EDUCATION

### **Queens College (QC), City University of New York (CUNY)**

Bachelor of Science (B.S.) in Computer Science with Minor in Mathematics

Flushing, NY  
Expected Dec 2021

#### **Relevant Coursework:**

Data Structures, C++/Java Programming, Computer Organization/Architecture, Operating Systems

## SKILLS

**Programming:** Java, HTML/CSS, Bash, Python, JavaScript, C/C++, C#, ReactJS, Node.js, Express, Django, Tensorflow

**Technologies:** Git, GNU/Linux, Windows (7/8/10), Mac OSX, Firebase, Docker, MongoDB, Unity, Arduino

## PROJECTS

### **MCC Linux ModManager**

Jul 2020 - October 2020

- Implemented a CLI capable of automating the process of adding/removing modifications to a game-platform which lacks support for Unix-like OS users, thus increasing Linux accessibility.
- Developed the UI using C++/Bash in order for the application to run on any Linux machine, and to avoid dependency issues.

### **Convolutional Neural Network - Skin Lesion Classifier**

Mar 2020 – May 2020

- Trained a Convolutional Neural Network using Keras/Tensorflow to classify skin lesions based on seven different categories.
- Utilized the HAM10000 dataset included over 36,000 images in training this model, which achieved an F1 score of about 89%.

### **FastGE**

Oct 2019 – Feb 2020

- Built a web-based application using ReactJS, and Bootstrap for users to quickly see information about items that exist within a virtual market.
- Implemented a database using Google Firebase to store information about these items
- Automated the process of adding/removing items with scripts written in JavaScript/Bash.

## RELEVANT EXPERIENCE

### **National Science Foundation - REU**

New York, NY

ML Research Intern

Jan 2021 – Present

- Performed runtime analysis and optimization of various Matrix Multiplication & ML algorithms using distributed computing techniques via MPI and Python.
- Assisted in the formulation/development of state-of-the-art algorithms which are capable of minimizing the computational overhead of training a Neural Network when parallelizing the computation of the gradients across multiple CPUs.

### **CUNY Tech Prep**

New York, NY

Software Developer Student

Jun 2020 – May 2021

- Selected for a technical training program, as one out of 400+ applicants.
- Learn in-demand technologies like Python 3, Jupyter Notebooks, Pandas, Numpy, Scikit-learn, and SQL as well as industry best practices for exploratory data analysis (EDA), feature engineering, data collection and processing, statistical modeling, data visualization, machine learning techniques, data science process, and big data.

### **NASA: Minority University Research & Education Project**

Jamaica, NY

Robotics Instructor

Jul 2019 – Present

- Created goal-oriented lesson plans to teach basic Electrical Engineering concepts to K-12 students through MakeBlock construction and circuit building.
- Introduced over 120 K-12 students to basic Computer Science fundamentals through the use of Arduino and my very own “Intro to Python” curriculum.
- Tinkered with different activities to fulfill NASA's STEM education goals and expectations.
- Maintained an excellent classroom environment for students to ask questions.

## SUPPORTING EXPERIENCE

### **QC Game Development Club**

Flushing, NY

Project Leader/Vice President

Jan 2018 – May 2020

- Led a myriad of teams to design several games using the Unity Engine by assigning tasks, enforcing deadlines, and utilizing agile methodology.
- Created scripts in C# which served as outlines, allowing for quick demo deployment in a hackathon setting.

## ASSOCIATIONS

### **American Society of Mechanical Engineers (ASME)**

Mar 2019 - Present