Benjamin Variano

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EDUCATION

City College of New York New York, NY

Bachelor of Engineering in Computer Engineering Expected: December 2020

Relevant Courses: Data Structures, Algorithms, Computer Organization and Architecture, Operating Systems, Numerical and Scientific Programming

SKILLS

Programming Languages: Python (fluent), C++ (fluent), Java (familiar)

Proficiencies: DroneKit, Django, Git, API handling, Visual Studio Code, Linux OS

WORK EXPERIENCE

US Army Grant at RFCUNY | *Software Engineer Intern* May 2020 – Present

- Developed an autonomous drone swarm using **C++**, **Python**, and **DroneKit** by implementing game theory and genetic algorithms for military application
- Communicated with on-board flight controllers using **DroneKit API** and **MAVlink** protocols to make real-time decisions for flight maneuvers based on environment and mission

IT Technician at City College of New York | *College Assistant* November 2018 – Present

- Installed & maintained Operating Systems & software on Server and Host devices.
- Fixed networking issues pertaining to Cisco & D-Link switches and set up Static IPs for host devices.
- Managed ticket system & quickly resolved user issues using remote-assistant software

Cybersecurity Research at RFCUNY | *Research Assistant* July 2018 – December 2018

- Worked on establishing a secure communication link using **Agora.io API** to be embedded into a webpage for Doctor-patient interfacing
- Implemented encryption and token handling by integrating and customizing the **Agora.io API** into our **JavaScript** code to create a safe and reliable platform for communication

PROJECTS

AI Controlled Drone Spring 2020

- Created a drone capable of flying missions autonomously using **Python** and **C++** without active user input
- Interpreted input data from environment using **Python** and **C++** to make real-time decisions and communicate with flight controller next course of action

Single Cycle CPU Fall 2019

- Used **Quartus** and an **FPGA DE2** board to create a single cycle CPU in **VHDL**
- CPU could perform all Bitwise operations as well as logical shift and rotate, allowing for both signed and unsigned addition, subtraction and multiplication and division by values of 2

LEADERSHIP

Student Athlete at City College of New York | Lacrosse *Team Captain* Fall 2016 – Spring 2020

- Led a team of 25 peers through four seasons of varsity lacrosse as team captain
- Spent 2 years as Player-Coach organizing our practice and game schedule and acting as liaison between our team and the athletic department
- Mentored younger players both on and off the field during the season and off-season
- Arranged volunteer work for the team to give back to the local community