NICHOLAS GUAN

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EDUCATION

University of Maryland, College Park — College Park, MD
Bachelor of Science in Computer Science, GPA 3.59 — *Expected 2021*

- University Of Maryland Academic Honors – Dean's List
- College Park Scholars Public Leadership Program – Applied skills related to leadership, social innovation and entrepreneurship in order to achieve positive impact on local social issues or problems affecting PG County, MD

EXPERIENCE

IAFF GIS Internship — Washington, DC
Software Engineer — *Jun 2018 - Aug 2018*

- Utilized JavaScript and the ArcGIS API to create a website which allows users edit fire stations on an online map
- Upgraded an outdated website and crafted an intuitive user-friendly interface for a website using HTML and CSS
- Developed an algorithm which allows users to seamlessly import fire stations using information from a CSV file
- Employed geoprocessing REST services to calculate and display the area of distances that emergency vehicles can cover driving from fire stations within a specific amount of time and staff specified by user-input

Object-Oriented Programming Teaching Assistant — College Park, MD
Teaching Assistant for UMD Department of Computer Science — *Jan 2018 - May 2018*

- Coordinated with professors and developed efficient methods in order to instruct a class of over 300 students
- Held office hours to individually tutor students on essential programming skills such as debugging and testing
- Instructed a classroom of 30 students on the fundamentals of object-oriented programming using Eclipse and Processing including topics such as inheritance, encapsulation and polymorphism
- Developed, administrated and graded quizzes, exams and projects with a quick turnaround in order to provide constructive feedback to students in a timely manner

HackUMBC — Baltimore, MD
Hackathon — *Oct 2017*

- Implemented the Dark Sky API in order to display the weather extracted from information within a text field
- Created and presented a Chrome extension application in under 24 hours after learning JavaScript from scratch
- Orchestrated a team and developed an algorithm which searched an entire text field on a website to locate a specific location and date

PROJECTS

- **Weatherman**: Displays an up-to-date brief weather report right next to upcoming dates listed on any website. This application was built from scratch using JavaScript and uploaded it as a Chrome extension within a single day.
- **Image Filler**: Built a graphical Java program which utilized recursion to fill the inside or outside of an outline of a closed shape. This shape was determined by a list of coordinates which were contained within a text file.
- **Candy Crush**: Built a Candy Crush replica using Java which implemented a click and drag feature using key object-oriented programming concepts such as polymorphism and inheritance.

SKILLS AND ABILITIES

- **Languages**: Java, JavaScript, HTML, CSS, C, Python, MATLAB, LaTeX
- **Operating Systems**: Macintosh OS X, Microsoft Windows, Linux
- **Interests**: Artificial Intelligence, Internet Of Things, Mobile Development, Machine Learning, Cloud Computing

RELEVANT COURSEWORK

- **Mathematics**: Calculus I, Calculus II, Linear Algebra
- **Computer Science**: Discrete Structures, Computer Systems, Object-Oriented Programming I and II

LEADERSHIP AND ACTIVITIES

- **Phi Delta Sigma Fraternity (Head Social Chair)**: Leading a team to organize weekly events involving 50+ people
- **Public Leadership Scholars Program**: Composed a proposal allocating $5,000 which directly impacted PG County