

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

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 - Upgraded an outdated website and crafted an intuitive user-friendly interface for a website using HTML and CSS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 with a specific amount of time and staff specified by user-input
- **University of Maryland, College Park** College Park, MD
Teaching Assistant for Object-Oriented Programming 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, Intro to 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