

# NICHOLAS GUAN

🏠 11105 Post House Court, Potomac MD, 20854

✉️ nicholasguan45@gmail.com 📞 301-648-3248 🌐 nick-guan.com 🔗 linkedin.com/in/nicholas-guan

## EDUCATION

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- **University of Maryland, College Park** College Park, MD  
*Bachelor of Science in Computer Science, GPA 3.59* Expected 2020
  - 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

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- **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  - Upgraded an outdated website and crafted an intuitive user-friendly interface for a website using HTML and CSS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

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- **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

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- **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

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

## LEADERSHIP AND ACTIVITIES

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- **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