# Nizar Jandal Alrifai

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## Skills

- **Languages:** Java, Python, C, C++
- **Web-Dev:** HTML5/CSS3/JavaScript
- **Hardware:** Arduino, Raspberry Pi, Circuit Design and VHDL
- **App Development:** Android Studio
- **Libraries/Tools:** Digital Ocean, JSON, Bootstrap, LibGDX, Pygame, OpenCV, LaTeX, and many more
- **Programming Software:** Git, GitHub, IntelliJ, Eclipse, Clion, PyCharm, Sublime Text, Atom

## Key Projects

### Mini-Games Android Mania | Project

- Developed a series of entertaining multiplayer visual **Java** games using **LibGDX**
- Games include: a special Space Invaders, Frogger, a luck-based game, a memory game, and rope swinging
- Created an app to utilize phones as controllers, using **Android Studio**
- Established a connection using sockets between laptops and phones through a remote **Digital Ocean** server

### Seize-Control | Hack the North

- Utilized **OpenCV**, **Firebase**, **Pytube**, **HTML** and **CSS** to create a Google Chrome extension to filter potential seizure-inducing YouTube videos in a team environment
- Used **Python** to process and analyze pixels per frame using self-designed mathematical algorithms
- Modeled data acquired to display to the user through **JavaScript**

### Panium-RPG | Project

- Co-created an open world, turn-based RPG in **Python**.
- Used **Pygame** to create the visuals and **UI**, and enhance **UX**.
- Created an interactive, multi-layered maps and rooms for the user to explore, using Tiled
- Created and gathered various sprites, to visualize 2 playable characters, many NPCs, and 20+ unique enemies
- Used **File I/O** to allow for the users to save their progress and continue their adventures at any point

### Bored | Massey-Hacks IV

- Collaborated with a team to create an app which find entertainment locations within an area using Python
- Acquired user location via interactive **Pygame/TKInter UI**
- Retrieved nearby location data in .JSON form using **Google Maps** and **GeoCoder API**
- Created a **script** to filter data, then displayed it to the user on the screen

## Experience

### Front-End Web Developer | Canada South Science City | Windsor, ON          July 2019-September 2019

- Took initiative to rebuild the company's main website from scratch for the organization using **HTML**, **CSS**, **JavaScript**, and **Bootstrap** for a more informative and user-friendly website
- Helped establish and open 3 new exhibits to the public

### Co-founder and Instructor | CodeReach | Windsor, ON          September 2017 – June 2018

- Co-founded an initiative to teach elementary school students programming.
- Collaborated with over 10 other team members to teach 70+ students Python and Pygame fundamentals
- Gained media attention and acquired **80%**+ satisfaction rates from attendees.
- Applications rates increased by **60%** the following year

### Vice President and Member | Debate Club | Windsor, ON          September 2016 – July 2019

- Award winning and seasoned debater
- Hosted meetings and managed over 70 members on a weekly basis
- Organized various local debate tournaments for high schools in the Windsor-Essex area

## Education

### Candidate for BASc in Computer Engineering | University of Waterloo, Waterloo, ON          2019 – 2024 (expected)

- Elected as 1 of 2 Engineering Society representatives from a class of 160 students