Awn Duqoum

+1-519-998-4542
AwnCreations.com
ADuqoum@gmail.com
github.com/Awn-Duqoum

Skills Summary

- Mastery of C/C++, Objective C, Python, and MATLAB
- Proficient in PHP, Java, JavaScript, MySQL, and jQuery
- Experience with image and signal processing, OpenCV, and machine learning
- Ability to work independently or with a group, gained through several projects

Work Experience

Extreme Blue – Software Developer   (May. 2018 – Aug. 2018)
IBM Canada Ltd., Toronto, ON

- Lead a fast-paced team of three to invent, develop, and patent a *Cognitive Automation Advisor*
- Consulted with industry leaders to continuously improve the prototype
- Requested funding of $12 million for project through pitches to IBM C suite executives and VPs

Software Developer   (Sept. 2017 – Dec. 2017)
2G Robotics Inc., Waterloo, ON

- Simulated and designed multiple PCBs to control, profile, and focus a laser beam
- Researched and implemented novel camera models and undistortion methods to improve accuracy of the *ULS 500* system
- Created a method for determining the theoretical and physical location of a camera's optical center to allow for more flexible laser and camera positioning

Medical Device Design Engineering   (Jan. 2017 – May 2017)
Intellijoint Surgical Inc., Waterloo, ON

- Maintained and regularly made improvements to the flagship product *Intellijoint Hip*
- Researched and developed a tool to assist orthopedic surgeons with implant selection using active shape models and backpropagation neural networks
- Developed new image processing strategies to improve the accuracy and speed of rigid body tracking for hip localization

Advanced Research Development   (Sept. 2015 – Dec. 2015 & May 2016 – Aug. 2016)
Northern Digital Inc., Waterloo, ON

- Developed and tested field calibration software to enable customers to evaluate camera accuracy
- Created a build sever to run automated tests to aid in problem diagnosis and design validation
- Implemented a production data visualization toolkit to aid in the data analysis process

Mechanical Designer   (Sept. 2015 – Dec. 2016)
Qidni Labs, Waterloo, ON

Verification Specialist   (Jan. 2015 – Apr. 2015)
Agriculture and Agri-Food Canada, Ottawa, ON

Volunteer Experiences

Federation Orientation Committee (EngFOC)   (Nov. 2017 – Present)
University of Waterloo, Waterloo, ON

- Interviewed and hired 400 upper year students as leaders for Orientation 2018
- Oversaw event planning and execution for 1950 first year Engineering students
- Utilized effective risk-management strategies to minimize issues with programming and logistics

Education

Candidate for Bachelor of Applied Science, Honors Mechatronics Engineering with an AI option
University of Waterloo, Waterloo ON   (Sept. 2014 – Apr. 2019)