Noah W. **Johnson**

Simulation, Modeling, and Analysis Engineer

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Professional Experience

Mid-Level Simulation and Modeling Engineer
Tucson, AZ

Raytheon Missiles and Defense
May 2020 - Present

- **Active Secret Clearance**
- Recognized SME within program on C++, CUDA, Git, and Grid-based Massively Parallel Computing.
- Specialized in optimization of FPGA and Signal Processing Algorithms.
- Led year long study into optimization of a Monte Carlo simulation, resulting in over 80% reduction in regression runtime. Program-wide development loop tightened from days to hours.
- Frequently collaborated across teams to support detection algorithm design.
- Supported company onboarding process by acting as a new hire ambassador.
- Demonstrated proficiency in analysis, diagnosis, and subsequent treatment of simulation defects that had eroded compliance.
- Development was primarily conducted in C++, but non-trivial work was also completed in Fortran 77/95, Perl, Python, and Matlab.

Naval Engineering Intern
Kingston, RI

Martin Defense Group (Formerly Navatek Ltd.)
May 2019 - Aug. 2019

- Designed and Implemented a framework for Augmented Reality Registration using fiducial markers in C++.
- Presented work weekly to project stakeholders in Department of the Navy to ensure compliance with customer requests.
- Coordinated with team members to integrate Pose Estimation to achieve centimeter-level precision.

Graduate Research Assistant, Undergraduate Lab Coordinator
Kingston, RI

Smart Networking and Computing (SNeC) Lab
May 2018 - May 2020

- Developed novel algorithm that minimizes energy usage and latency of mobile-based deep learning inference using real-time task partioning.
- Developed system for Augmented Reality aided health management in collaboration with Rhode Island Veterans Affairs.
- Developed Augmented Reality application to improve driver awareness using existing ”dashcam” hardware.
- Led team of four engineers on development of cyclist gear designed to increase visibility to self-driving automotive systems.

Embedded Systems Engineer
Kingston, RI

Hand-held Arbitrary Waveform Generator - AstroNova Inc.
Aug. 2017 - May 2018

- Designed and implemented FPGA-based architecture using VHDL and Xilinx Vivado Tools.
- Wrote firmware to support control of waveform parameters using C and Vivado SDK.
- Assisted in writing PC based application for fine control of waveforms using C#.

Education

Graduate

Masters of Science, Electrical Engineering
Kingston, RI

University of Rhode Island
August 2018 - May 2020

Focus: Network-Aware Task Partitioning, Edge Computing, Mobile Augmented Reality Networking

Undergraduate

Bachelors of Science, Computer Engineering
Kingston, RI

University of Rhode Island
August 2014 - May 2018

Technical Skills

Simulation	Optimization, Monte Carlo Simulation, Regression Analysis
Parallel Computing	CUDA, OpenMP, Slurm, Sun Grid Engine
Embedded Systems	VHDL, FPGA Algorithm Design, C, C++
Data Analysis	Perl, Python, Tensorflow, Matlab, Mathematica
Other	Robust knowledge of most operating systems, Effective communicator, public speaker, project coordinator