Noah W. **Johnson**

References Available upon Request

(567) 686-8151 | njohnsoncpe@gmail.com | njohnsoncpe.github.io | njohnsoncpe | njohnsoncpe

Technical Skills

Data Science	Python, Deep Learning using Tensorflow, Event driven simulation using C/C++/VHDL, MATLAB
Embedded Systems	2 years of FPGA logic design using VHDL, Programming of said architectures using C
DSP/Control Systems	Design/analysis of digital control systems and filters using MATLAB, Delta analysis of control systems
Other	Robust knowledge of most operating systems, Effective communicator, public speaker, project coordinator

Education

University of Rhode Island — *South Kingston, RI*

Bachelors of Science, Computer Engineering (GPA : 3.05) — *Aug. 2014 - May 2018*

Professional Experience

Handheld Arbitrary Waveform Generator - AstroNova Inc. — *Kingston, RI*

Embedded Systems Engineer — *Aug. 2017 - Present*

- 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#.

University of Rhode Island IT Services — *Kingston, RI*

IT Hardware Specialist — *Oct. 2016 - Present*

- Serviced/optimized hardware and software daily for students/faculty. Honed communication and teamwork skills.

VoltServer Inc. — *East Greenwich, RI*

Production Engineering Intern — *Mar. 2017 - Aug. 2017*

- Designed and constructed production testing / validation equipment and software.
- Performed RMA work on high voltage power transmission boards. Honed soldering ability.

Zepf Mental Health Center — *Toledo, Ohio*

Database Engineer — *May 2016 - Aug. 2016*

- Developed HIPAA-compliant health care credential database using MS Access and MySQL.
- Worked with fellow team members to roll out large scale changes to system architecture.

Honors & Awards

2016 - 17 **Dean's List**, University of Rhode Island — *South Kingston, RI*

2014 **Eagle Scout**, Boy Scouts of America, Troop 27 — *Toledo, OH*

Project Experience

Neural Network Driven Computer Vision — *ELE 408 - Embedded System Design*

Focus: Machine Learning, Edge Computing, Embedded Systems — *Spring 2018*

- Developing Neural Network to quickly identify movement within live IP Camera footage using Tensorflow and Google SSD MobileNet.
- **Final Inference Engine identifies faces at 15-20 Frames Per Second**

Various Models of Digital Control — *ELE 458 - Digital Control Systems*

Focus: Design of SISO/MIMO Control Systems, Observer-based Systems, Digital Tracking Systems — *Spring 2018*

- Extensively used Matlab, Simulink and lab hardware to derive and implement linear hardware control systems.

Fractal Algorithm Optimization *ELE 405 - Digital Computer Design*

Focus: Instruction Set Design, Pipeline Optimization *Fall 2018*

- Optimized 7 Stage Pipeline CPU written in VHDL for graphics processing. **Earned 3rd best optimization metric in class of 30.**