Nathan D. Koenigsmark

Electrical Engineer

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Technical Skills

C - Experienced, over four years of active classes and projects in C including usage in DSP systems.

Python - Experienced, two years of classes and project usage in Python.

Verilog - Competent, two years of class in Verilog designing FPGA systems.

Java - Very Proficient, two years of active classes in Java.

X86 - Assembly - Very Proficient, two years of classes including assembly.

Matlab - Proficient, five years of miscellaneous Matlab usage and assignments.

JavaScript - Some Exposure- Developed a small web app as a personal project.

Excel - Very Experienced, 5 years of regular and active excel usage.

Projects/Experience

Autonomous Interacting Robot

Fall 2019

- Worked in a three man team to develop an autonomous robot
- smoothly tracked and followed a target in real time via python based computer vision
- responded to voice commands via amazon's alexa custom skill API
- Communicated and cooperated with other teams robots via a flask server to achieve swarming behavior.

Heuristic Based Chess Engine

Spring 2020

• Developed a python based chess engine implementing alpha beta heuristics

Mixed-Terrain Surveying Robot

Spring 2016

- Worked on a 3 month 8 team man design project placing first out of 10 teams
- Lead half of team in hardware/software development

Education

University Of Maryland , College Park - B.S. in Electrical Engineering

August 2015 - May 2020

A. James Clark School of Engineering, Specialized in communications and signal processing with a 2.54 GPA, took additional coursework in computer science