Ryoma Kawakami

Kawakami.17@osu.edu | 812 Whetstone Ct., Bellefontaine, OH 43311 | 937-539-3502

OBJECTIVE

Engineering internship opportunity for May - August, 2019 applying computer science and engineering skills.

EDUCATION

The Ohio State University, Columbus, Ohio August 2018 - May 2022
GPA: 4.0
Pre-Major in Computer Science and Engineering
Recipient of Maximus Scholarship and Honda - Ohio State STEM Scholarship

Bellefontaine High School, Bellefontaine, Ohio August 2014 - May 2018
GPA: 4.531, Ranking: 1st out of 220
National Merit Commended Scholar and National AP Scholar
Involvements: National Honors Society, Model UN, Marching Band

QUALIFICATIONS

- Coursework: Fundamentals of Engineering Honors (FEH)
- Languages: C/C++, HTML/CSS, Java, JavaScript, MySQL, Python, RubyonRails
- Experience with MATLAB, Simulink, Stateflow, CAD software
- Knowledge of deep learning, genetic algorithms, and neural networks
- Several years of experience with robotics (building, programming, logistics)

ACTIVITIES AND INTERESTS

EcoCAR August 2018 - Present
- Connected and Automated Vehicles (CAVs) Team
- Developing driver assistance systems that minimize human error and increase road safety, including adaptive cruise control and collision prevention
- Working with hardware (sensors and processors) and software (sensor fusion, filters, and simulations) to allow the vehicle to better analyze its surroundings

American Society for Engineering Education (ASEE) August 2018 - Present
- Website Committee: Performing maintenance on website to market ASEE
- Creating a publicly accessible database of undergraduate research opportunities that allows professors to submit descriptions and requirements of open positions

VEX Robotics Competition (VRC) Team Captain June 2013 - April 2018
- 2-Time State Champion
- Programmed robot movement control using motion profiling (with PID) in C/C++
- Built steel and aluminum metal robot using the VEX control system
- Documented the building, programming, and debugging processes during every meeting, to be used as a reference for future competitors and to prevent similar mistakes from happening more than once

PROJECT EXPERIENCE

Codeblock Creation
- Wrote a file with many user-friendly functions such as ‘move forward’, ‘set position’, ‘set indicator light’ to assist younger members in learning more advanced programming concepts
- Created user manual based on preferences and questions from youth users

Genetic Algorithm / Neural Network
- Programmed genetic algorithms in C++ to learn to play simple games like Nim, as well as more complex games like Tetris
- Created neural network structure from scratch to allow the AI to make more advanced decisions based on game conditions and to train an AI to identify handwritten digits (from the MNIST database)