Dimitri van Well

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EDUCATION

Wayne State University

BS Electrical Engineering GPA: 3.4

Detroit, MI May 2023

Work Experience

Wayne State Robotics Team

Detroit, MI

April 2022 - August 2023

Hardware Lead Engineer

 \bullet Responsible for autonomous robot construction/ programming, integration, and design of sensors/control systems

- Led and mentored 10 members in mechanical and electrical design and construction.
- Prepared and maintained budget reports and technical documents
- Designed autonomous robot: concept, error checking, simulation, prototyping, and construction of mechanical, computer, and electrical systems. Accomplished manufacturing and integration under the allotted budget.
- Wrote autonomous navigation program. Takes in Laser Scan Data and follows the gradient of bounds to avoid obstacles. When incorporated into the stack created a redundancy for the robot's navigation across terrain.
- Received 2nd Overall and 6th in design at the International Intelligent Ground Vehicle Competition 2023

City of Dearborn

Dearborn, MI

Crew Supervisor/ Technician

August 2019 - Present

- Working on electronics, network integration for audio-visual and motor controls for performance venues
- Repaired electronics and handled 400-volt distribution systems
- Extensive knowledge and execution of industrial equipment and tools
- Design electrical architectures and schematics
- Signal debugging and filtering to reduce feedback loops and noise
- Lead Project manager for a new technology systems upgrade. This required writing a proposal and design that achieved approval of \$40,000+ in funding. In addition, overseeing the integration and installation of the final projects.

South Redford School District

Redford, MI

 $Tech\ Director$

Technologies:

November 2016 - March 2022

- Programmed the coordination of intelligent lighting parameters, projection parameters, and audio/frequency filtering and debugging for streamlined performance for the venue
- Hired, managed, trained, and mentored up to 15 staff members, involving feedback to staff, and enforcing policies and deadlines

SKILLS

Programming Languages: Hardware/Microprocessors:

 $C,\,C++,\,Python,\,MATLAB,\,Assembly,\,HPC\,\,GRID\,\,Computing$

ARM Processors, Atmega 328 (Arduino), MIPS, RISC-V

MathCAD, AutoCAD, Wireshark, ROS, QtSpim, Cadence, Arduino IDE,

Linux (Ubuntu, CentOS), LabView, PuTTY, NI Multisim

PROJECTS

Stop Light with Pedestrian TI 4C123G Micro Chip

github.com/DimivanWell/Micro-Computers

Through ARM programming, a physical circuit was built comprised of LEDs, Seven Segment Display, and an interrupt switch was used to craft a stop light with a pedestrian alert system.

Multithreading Cloud Server Customer Data Base Python github.com/DimivanWell/Networking Wrote a server and client-side back-end program that takes in customer information like ID, name, phone number, address, and picture for a customer database app

Odd-Even Sort Parallel Algorithm *MPI in C* github.com/DimivanWell/CSC6220-Parallel-Algorithm Using 8 processors, write a program utilizing MPI that generates up to 224 random integers and sorts them. The integers are to be within the bounds of [0, 128]. This was executed in the Wayne State Grid.