David F. Vella

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https://github.com/David-Vella

EDUCATION

University of Michigan, Ann Arbor, MI *Aug 2019 – Dec 2022*
B.S.E. Computer Science and Engineering *GPA: 3.96 / 4.00*

Coursework:
EECS 280 Programming and Data Structures *Winter 2020*
- Algorithms, abstract and structured data types, recursion, pointers, testing and debugging
- Large programming projects in C++

ENGR 100 Intro Engineering Section 400 Autonomous Systems *Fall 2019*
- Worked in a team to develop and implement control algorithms enabling a quadcopter to autonomously navigate a maze
- Wrote reports and delivered presentations on our teams progress and results
- Programming in C++ and control system simulation using MATLAB

ENGR 101 Intro Programming *Fall 2019*
- MATLAB, C++, data structures, algorithms, testing and debugging, style

PROJECT EXPERIENCE

Autopilot for Radio Control Aircraft *Mar 2020 – Jun 2020*
Source code and video: https://github.com/David-Vella/autopilot
- Developed and implemented control algorithms for semi-autonomous cruise, takeoff, and landing
- Programmed an Arduino microcontroller in C++ to process signals and compute 3D orientation

FIRST Robotics FRC Team #67 *Jan 2015 – Apr 2019*
Electrical & Controls Lead
- Led students through design and assembly of the robot's electrical and control systems
- Quickly diagnosed and resolved electrical and software issues during competition

WORK EXPERIENCE

All Covered, Farmington Hills, MI *May 2020 – Aug 2020*
Deployment Team Member
- Worked in a team to configure new computers for commercial customers
- Developed shell scripts to automate software installation and keep inventory

SKILLS

Languages: C, C++, Python
Environments: Windows, Linux
Tools: Git, Bash

ACTIVITIES

Michigan Ski Club *Aug 2019 – Present*
Piano *2006 – Present*