Anthony Tugman

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EDUCATION

Indiana University Bloomington Bloomington, IN

M.S. Intelligent Systems Engineering – Cyber-Physical Systems May 2021

B.S. Intelligent Systems Engineering – Cyber-Physical Systems May 2020
Final GPA: 3.48/4.0

EXPERIENCE

Lumis Corp Pittsburgh, PA
Hardware/Software Integration Consultant May 2020 – July 2020

- Created a demonstration-ready prototype in 10 weeks' time within budget and meeting all design requirements
- Prepared accompanying documentation to aid in replication and assembly for larger scale testing

Hardware/Software Integration Intern May 2019 – July 2019

- Facilitated rapid development efforts by leading 3D modeling, fabrication, and research to integrate pilot program feature requests as proposed during demonstrations with clients
- Redesigned an existing training product to meet new client needs including reconfiguring hardware, updating the PCB, and preparing accompanying software and documentation
- Automated the above training module to reduce setup and calibration time by 80%

ACADEMIC PROJECTS AND RESEARCH

IntelliPlants – Automated Greenhouse System August 2019 – May 2020
Hardware Integrator Bloomington, IN

- Selected and justified each hardware component to ensure the components were compatible and appropriate, explainable in a format easily digestible by my team
- Verified component selection and standard fulfillment through creation of schematics, analysis of simulations, rapid prototyping, and final defense in front of a review board

Light Monitoring System for Indiana DNR January 2018 – May 2018
Hardware Integrator Bloomington, IN

- Designed a prototype conforming to customer requirements including cost, weatherability, and ease of use by selecting components, generating a PCB, and fabricating a weatherproof housing
- Collaborated with Computer Science student communicating my need to further refine the device's power consumption and data logging capabilities through software

Improving Maker Technology For Aging Adults August 2017 – December 2017
Undergraduate Researcher Bloomington, IN

- Fabricated 3D printed circuit connectors allowing those with impaired coordination to use the device documenting my design so that researchers may incorporate it in future research

TECHNICAL SKILLS

- **Languages:** Python, Verilog, Arduino, C, C++, C#
- **Software:** EAGLE, SolidWorks, Fusion 360, Unity 3D Git, Linux
- **Lab:** Component Selection/Assembly, Soldering, Oscilloscope, Function Generator, 3D Printing, Laser Cutting, CNC, CAD Modeling, PCB Design