Samuel Witte

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EDUCATION

UNIVERSITY OF IOWA - IOWA CITY, IA

BSE Electrical Engineering   Aug 2020 - Present

Computer Focus   Focus Area of Computer Hardware   Anticipated Graduation Fall 2024

EXPERIENCE

UNDERGRADUATE COMPUTER ENGINEER, UNIVERSITY OF IOWA

Iowa City, IA   Feb 2023 - Present
- Worked in association and collaboration with NASA and University research groups
- Projects utilized Raspberry Pi Pico microcontrollers, FPGA development boards, and proprietary ICs
- Collaborated on projects including satellite instrumentation test equipment and experimental medical treatment

ELECTRICAL DESIGN INTERN, SSC ENGINEERING, INC.

Chesterfield, MO   Dec 2021 - Jan 2022, May 2022 - Aug 2022
- Programmed and maintained internally used automation scripts written in Python and PowerShell to save over 40 hours monthly; deployed across systems company-wide using external script deployment software
- Designed electrical layouts for commercial buildings with Revit and AutoCAD to address daily client specifications
- Enabled teams of up to 4 to complete individualized work, followed by whole-team validation to ensure quality and execution of our services

PROJECTS

HPR Flight Computer	Records sensor data in-flight for analysis post-flight using an RP2040 micro-controller. Developed and assembled custom PCB. Practiced BOM management, version control, PCB layout and design, and collaborating with others.
Cryptocurrency Counter	Uses Python to make real-time estimates on cryptocurrency balance utilizing APIs and a Raspberry Pi Zero. Made out of personal interest.

LEADERSHIP

President - AIAA University of Iowa Chapter (High Powered Rocketry)   May 2022 - Present
- Organize, coordinate, and prepare material for weekly meetings, events, and competitions
- Flight avionics and electronics team lead
- Write grant proposals, ongoing design reports, and receive grant funding

Executive Assistant - AIAA University of Iowa Chapter (High Powered Rocketry)   Aug 2021 - May 2022
- Project lead for competition rocket, which included design, modifications, and assembly
- Assisted president with logistics and weekly meeting plans

RELEVANT COURSEWORK

Computers in Engineering(C++)	Discrete Structures	Introduction to Numerical Methods
Intro to Digital Design	Principles of Electronic Instrumentation	Electrical Circuits
EM Theory	Physics IV (Intro to Modern/Quantum)	Linear Systems I

SKILLS

Python   Verilog   C++   Altium Designer   KiCad EDA   Fusion 360   Github/Version Control
Powershell   SMD and Through-hole Soldering   Revit and AutoCAD   Excel/Microsoft Suite