Matthew Alexander Hawkins

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Education:

- Bucknell University: Lewisburg, PA
- Bachelor of Science in Computer Engineering with a minor in Mathematics.
- Expected graduation date: May 2017
- GPA: 3.38 Cumulative / 3.62 Engineering

Work and Project Experience:

System Administrator, *HawkEye Technologies, LLC*: Milford, CT, March 2012 – August 2014

- Assembly of infrared sources including coil winding, spot welding, and cement casting
- Stress testing units
- Data collection and metric analysis
- Datasheet design and publishing

Participant, *Keen Winter Interdisciplinary Design Experience* (KWIDE): Lewisburg, PA, January 2015

- Brainstorming and the engineering design process.
- Rapid prototyping
- Elevator pitch

Participant, *Institute for Leadership in Sustainable Technology* (ILST): Lewisburg, PA, June – August 2015

- Solar window analysis and site feasibility assessment
- Business plan design and pro forma financial statements

Teaching Assistant, Bucknell University: Lewisburg, PA, August 2014 – December 2015

- CSCI 203: Intro to Computer Science
- ELEC 205: Electrical and Computer Engineering Fundamentals

HydroSense Researcher, Bucknell University: Lewisburg, PA, January 2016 – May 2016

- System engineer for sonde firmware
- Testing and validation of Arduino weather station

Database Administrator, Sikorsky Aircraft Corporation: Stratford, CT, June 2016 – August 2016

- Migration from Excel to relational solution in Access
- Automated polling of off-site database for up to date resources
- Frontend GUI development for ease of use and automation of tasks

Software Experience:

- C, Java, Python, HTML, CSS, Javascript, SQL, MATLAB
- MIPS Architecture, Verilog, Multisim (SPICE), Simulink
- Word, Excel, Access, PowerPoint, Publisher

Relevant Classroom Experience:

Computer Science

Algorithms and data structures. Assembler design utilizing the MIPS architecture. Processor organization. Memory hierarchy. Interfacing processors and I/O devices. Relational model of data. Database schema. Identifying redundancies, normalization, and MVD. Relational algebra. Interrupts, polling, and DMA. Interprocess communication and synchronization. CPU scheduling. Managing main and virtual memory. File system interfaces and implementations.

Electrical Engineering

Voltage, current, resistance, and power relationships. Signal processing. Digital logic and digital system design. Phasor domain analysis. Transformers. Complex and three-phase power. Transients. Filters. Laplace, Fourier, and Z transforms. Discrete and continuous signals. Differential and difference equations. Analog and digital filter design. Amplifiers, diodes, FETs, and BJTs. Measurement systems. Power supply design.