# Matthew William Walker

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### **EDUCATION**

**Bachelor of Science**, 2020 **Ohio Northern University** GPA: 294

**Major:** Computer Engineering (ABET Accredited)

### WORK EXPERIENCE

## Cyber Security Engineer, KBR

June 2020 - Present

- Developed multi-platform C-based applications used in military environments
- Designed and wrote python code to operate on a Raspberry Pi using the PySerial library
- Performed reverse engineering techniques on various hardware and software components
- Integrated various large libraries into an existing codebase (SOLite, Windows API, etc.)
- Worked in an agile team-based environment utilizing source control (git)

## **Electrical Engineer, Ohio Northern University**

Summer 2019

- Redesigned the physical LED lighting system behind 'Inspiration' tower
- Wrote an Aruduino program to interact with the tower and execute various themes
- Developed a GUI for a user to interface with and execute code on the Arduino

## Research Assistant, Ohio Northern University

Summer 2017

- Researched new assessment practice that is implemented in all first-year engineering classrooms
- Tracked student learning throughout their entire collegiate career

## TECHNICAL PROFICIENCIES

- **Programming Languages**: Assembly, C, C++, C#, Java, MATLAB, Swift, PHP, Python
- Operating Systems: Linux, MacOS, Windows
- Hardware: FPGAs, ARM Processors, Raspberry Pi, Arduino/Various Microprocessors
- Networking Principles: Network Design and Troubleshooting, Routing, Security, Firewalls, NAT

# RECOGNITIONS AND PUBLICATIONS

- **Building Inspiration:** A video highlighting the construction of the 'Inspiration' crystal tower in the James Lehr Kennedy Engineering Building at Ohio Northern University
- https://www.youtube.com/watch?v=bfBZNGN HAQ
- A B or not a B?: Published paper in the 2018 American Society for Engineering Education journal focusing on various new methods of grading collegiate engineering students
- https://peer.asee.org/29655

### RELATED UNIVERSITY COURSEWORK

Computer Architecture Digital Signal Processing User Interface Design Computer Networks Operating Systems Data Structures and Algorithms VLSI System Design Networks and Data Electronics **Embedded Systems** Communication Microprocessors

### University Involvement

Kappa Kappa Psi, Ohio Northern University Phi Mu Alpha Sinfonia, Ohio Northern University - President 2018 to Present 2017 to Present