# Mason Schleu

Software Engineer
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## EDUCATION

***B.S. Computer Engineering*, University of Nebraska, Lincoln**
2014 - 2018 // Omaha, NE - Peter Kiewit Institute
> President of the University of Nebraska Omaha Maker Group 2018

## PROFESSIONAL EXPERIENCE

***Cyber Software Engineer*, Lockheed Martin – Cyber Network Interface Device (CNID)** **Active Top Secret**
December 2018 – present // Louisville, CO
> Developed Python framework to automate the testing of thousands of CNID requirements.
> Designed automated cross-platform build and deploy system in Python that streamlined team's development workflow.
> Wrote multithreaded C++ applications that integrated with Python test code using low level socket programming.
> Collaborated with external entities such as QA and customer to facilitate efficient delivery events.

***Embedded Software Engineer*, Lockheed Martin – Software Defined Satellites (SDS)**
May 2018 – December 2018 // Louisville, CO
> Developed the backend for the configuration service in C++ which handled requests from json, yaml, and ZooKeeper.
> Wrote high quality documentation using Sphinx and Doxygen for all SDS services used by developers and users.
> Used YOCTO to configure, build, and deploy custom Linux kernel images to target platforms.
> Laid foundation for app manager utilizing LXC to create containers on custom embedded Linux distributions.

***Undergraduate Research Assistant*, University of Nebraska, Omaha**
Fall 2016 – Spring 2018 // Omaha, NE
> Collaborated with medical doctors and human research subjects to develop user-friendly biomechanical devices.
> Coded mobile smartphone apps in Java and C# to quantify mobile sensor data from human motion.
> Presented research at conferences to small audiences with wide range of backgrounds.

***Software Developer Intern*, National Strategic Research Institute**
Spring 2017 – Spring 2018 // Omaha, NE
> Developed AR applications for the Microsoft HoloLens in Unity using C# to enable gesture and voice control of planes.
> Communicated information to non-technical stakeholders via video tutorials and documentation.

## TECHNICAL SKILLS

**Programming Languages:** Python, C/C++/C#, Bash, Make, HTML/CSS, Java, Assembly, Verilog, VHDL
**Development:** Object oriented programming, debugging, sockets, data structures, performance, unit testing
**Programs/Tools:** Jenkins, Atlassian suite, AWS, Microsoft Office suite, Microsoft Visual Studio, WireShark, tcpdump
**Operating Systems:** Ubuntu, Red Hat, Windows, macOS, YOCTO, LXC, VMs, kernel modules, Systemd, bootloaders

## PROJECTS

***Hexapod Robot* – Tech:** BeagleBone Black, ROS, Servo Motors, PS2 controller, Servo controller
> Built a six-legged robot with 18DOF using ROS on a BeagleBone Black with user input from a PS2 controller.
> Learned fundamentals of using embedded Linux distributions to communicate with external peripherals.

***CEEN Bot* – Tech:** ATmega324 Microcontroller, nRF24L01 transceiver, I2C, SPI, UART
> Two-way communication using a transceiver module so two CEEN Bots could communicate together.
> Sent positional information back and forth so robots could avoid collisions.

***Foot Temperature Monitor* – Tech:** PCB design, SD, BLE, ARM Microcontroller, C programming, Android app
> Four person team designed Android app and embedded system to track foot temperature using Bluetooth sensors.
> Conducted user experience survey to determine setup friendliness of mobile app and footwear.