

# Paul Walko

(502) 509-6242 • pwalko@vt.edu • <https://paul.walko.org>

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## EDUCATION

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**Virginia Tech, GPA: 3.14**

*Blacksburg, VA*

**Pursuing Bachelor of Science**

*2018*

**Major:** Computer Science

**Minor:** Cyber Security

**Languages:** C, Java, Python, Bash

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## WORK EXPERIENCE

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**Cybersecurity Engineering Intern**

*May 2017 - Aug 2018*

**Cisco Systems, Security & Trust Organization**

*RTP, NC*

- Developed Linux security module anti-malware for IoT devices
- Hardened Linux systems and kernels
- Analyzed and prevented potential security bugs

**Research Assistant – Hume Center at Virginia Tech**

*Aug 2017 - Dec 2017*

**Analyzed several TB of network flow data**

*Blacksburg, VA*

- Learned about issues with large data sets
- Built connections between independent data sets

**Research Assistant – Hume Center at Virginia Tech**

*Sep 2016 - May 2017*

**Created portable, concealable Bluetooth pen-testing device**

*Blacksburg, VA*

- Intercepted data from keyboards, mice, and other BLE devices
- Analyzed data using Wireshark and python to find patterns and vulnerabilities

**S.W.A.T Technician**

*Aug 2016 - May 2017*

**Virginia Tech College of Engineering**

*Blacksburg, VA*

- Assisted customers with software/OS installation
- Diagnosed installation and network issues

**Summer Camp Instructor / Lead Instructor**

*Summer 2014, 2015*

**Lincoln Heritage Council, Boy Scouts of America**

*Clermont, KY*

- Taught & supervised at a boy scout summer camp area
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## PROJECTS

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Github: <https://github.com/paulwalko>

**Eagle Scout, Troop 306**

*2013*

**Virginia Tech Linux/Unix Users Group (VTLUUG)**

*2017, 2018*

**Sysadmin**

*Blacksburg, VA*

- **FreeIPA/LDAP** - Maintain accounts for email, shell access, and webserver
- **In process of infrastructure rebuild** - Current plan: [https://vtluug.org/wiki/Project\\_Bringing\\_Sexy\\_Back](https://vtluug.org/wiki/Project_Bringing_Sexy_Back)
  - Manage ansible playbok to automate VM deployment: <https://github.com/vtluug/ansible>
  - Manage networking scripts for our network: <https://github.com/vtluug/scripts>
- **Organized funds** - Obtained \$1300 for new servers and equipment, and oversaw purchasing additional components

**Geospatial Related Projects**

- <https://tinyurl.com/lhcsamap> – Overlay for boy scouts to find information specific to their location
- <https://github.com/paulwalko/cccmmap-dij> – Dijkstra's algorithm implementation for scout camp
- **Google Maps/OSM** – Have contributed a lot to trails and any other errors I've found
- <https://vtluug.org/files/2017/vtbuidings/> - Information for all buildings on campus. Planning to extract information from pdf layouts to create floor plan overlay.
- **Refine US Forest Service boundary** – Walk along boundary; record monument condition and a more precise location. Done with Outdoor Club at Virginia Tech (OCVT)