

# Jacob Holtom

ELECTRICAL ENGINEER · SYSTEMS ADMINISTRATOR

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## Work Experience

### L-3 Communication Systems West

Salt Lake City, Utah

RF ENGINEER

Jan 2018 - Sep 2018

- Design RF hardware for mission critical systems
- Test and Debug RF hardware
- Work in team and follow standard engineering process

### BYU Spacecraft Group

Provo, Utah

LEAD COMMUNICATIONS ENGINEER

Apr 2016 - PRESENT

- Twin satellites will fly in early 2019
- Design an end-to-end satellite communications system within technical constraints
- Lead RF engineering work designing antennas and amplifier systems
- Developed Linux Address Family on-board satellite to support end to end communications
- Developed Ground Station system using an Ettus USRP and GNURadio
- Developed dishes and on-board antenna systems

### BYU Computer Aided Engineering Design and Manufacturing

Provo, Utah

ASSISTANT SYSTEMS ADMINISTRATOR

Nov 2015 - Jan 2018

- Developed Linux Infrastructure to maintain storage, enable authentication and enhance the user experience
- Migrated to a new LDAP cluster and schema using SaltStack
- Implemented MIT Kerberos in the environment using SaltStack

### SolvereOne and HouseCall IT

Dulles, Virginia and Washington D.C.

SYSTEMS ADMINISTRATOR

Jun 2013 - Oct 2015

- Maintained and designed secure network deployments
- Deployed and maintained Windows user and application systems
- Managed Linux administration

## Education

### BYU (Brigham Young University)

Provo, Utah

B.S. IN ELECTRICAL ENGINEERING

Sep 2015 - Apr 2019

- Math Minor
- Lead Communications Engineer on BYU's first small satellite mission

### TJHSST (Thomas Jefferson High School for Science and Technology)

Alexandria, Virginia

HIGH SCHOOL DIPLOMA

Sep 2011 - Jun 2015

- Designed NFC System for Senior Research Project

## Projects

### CCSDS Kernel Driver

LINUX ADDRESS FAMILY

Jul 2017

- Designed and implemented Linux kernel address family that adds CCSDS Space Packet Protocol support

## Competencies

- Active Directory, LDAP, Kerberos, Cisco IOS, Sophos UTM, Python, Haskell, C, C++, Embedded Development, Windows Server 2008 -2012 R2, CentOS/Ubuntu/Gentoo/RedHat Linux, BSD, Ansys HFSS, Matlab, Mathematica, VMWare vSphere, VMWare View, Microsoft Office 365, Nagios, Apache, NGINX, MySQL, PostgreSQL, HTML5, JavaScript, CSS, Java, Windows XP - 10, ZFS, SaltStack, LTspice, Autodesk EAGLE, Amateur Radio, FCC Licensing, RF Systems, Modulation, Packetization and Framing, GNURadio, Ettus USRP, Nuand BladeRF, RF Analysis, Mentor Graphics Xpedition, RF PCB Layout, RF Testing Equipment (Spectrum, Network Analyzers, etc.), National Instruments AWR, Keysight ADS