

Jacob Holtom

ELECTRICAL ENGINEER · SYSTEMS ADMINISTRATOR

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Work Experience

BYU Spacecraft Group

LEAD COMMUNICATIONS ENGINEER

Provo, Utah

Apr 2016 - PRESENT

- Twin satellites will fly in March 2019
- Design an end-to-end satellite communications system within technical constraints
- Lead RF engineering work including the design of dish and on-board antennas and amplifier systems
- Developed custom ground station system that utilizes an Ettus USRP and GNURadio

L-3 Communication Systems West

RF ENGINEER

Salt Lake City, Utah

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 Computer Aided Engineering Design and Manufacturing

ASSISTANT SYSTEMS ADMINISTRATOR

Provo, Utah

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

SYSTEMS ADMINISTRATOR

Dulles, Virginia and Washington D.C.

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)

B.S. IN ELECTRICAL ENGINEERING

Provo, Utah

Sep 2015 - Apr 2019

- Math Minor

TJHSST (Thomas Jefferson High School for Science and Technology)

HIGH SCHOOL DIPLOMA

Alexandria, Virginia

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

Publications

2018 **Femtosats: Elegant Flight Telemetry for Model Rockets**, International Telemetry Conference

Glendale, Arizona

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