John T. Lobdell

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Education	**Bachelor of Science – Computer Engineering – USAF Commission**	May '13
	Rose-Hulman Institute of Technology, Terre Haute, IN	

Skills
- Design, development, testing, debugging of software/firmware; various languages and platforms.
- Design, creation, testing, debugging, repairing of electronics and embedded systems.
- Technical leadership, engineering project management, systems engineering.
- Cybersecurity, vulnerability analysis, exploit development, penetration testing, system hardening.

Experience

Raytheon AST, Salt Lake City, Utah   Sep '19 - Present
Senior Software Engineer I
- Led team as Deputy Product Lead for system design and modeling software product.
- Mentored junior teammates on architecture, workflow, tools/frameworks, and best practices.
- Planned and implemented high-profile features to meet rapidly-changing customer needs.
- Improved routine processes with automation, saving time and reducing opportunity for errors.

C++, Qt, Git, Scrum, Shell Scripting, Linux, Bash, GDB

Alion Science and Technology, Albuquerque, New Mexico   Jan '18 - Sep '19
Senior Systems Engineer, In-House Contractor for AFRL
- Developed mod/sim tool for full-scope satcom; everything from the satellite to the operator terminal.
- Wrote tools to ingest specificationss and automatically configure satellite control software.
- Set up environment for bare-metal development on space computer. Trained personnel how to use it.

C++, Python, Ruby, GCC Cross-Compiler (PowerPC), Ball Aerospace COSMOS

United States Air Force, Air Force Research Lab (AFRL), Kirtland AFB   Dec '13 - Dec '17
Captain - Computer Engineer - Space Cyber Resiliency, AFRL Space Vehicles Directorate
- Led multi-org team in Nation's first space cyber resiliency experiment. Proved efficacy of TT&Ps.
- Conducted tests and vulnerability assessments on various systems to improve mission assurance.
- Managed two "flat-sat" labs for hi-fi software tests on space computing and avionics architectures.

C, Python, Ruby, Bash, DOT (Graph Description), COSMOS, Network Debugging

Lieutenant - Software Engineer - Satellite Assessment Center, AFRL Directed Energy Directorate
- Conducted parallelization project to use cross-platform laser-effect software on DoD supercomputer.
- Directed and managed contractor work on multiple software tools for space situational awareness.
- Wrote unit tests, fixed bugs, and improved code for operational space system analysis tools.

C++, C#, Boost, Qt, Windows, Linux

Lieutenant - Integration, Automation and Control Lead - AFRL Commander's Challenge 2014-15
- Conceived and developed system to detect and handle indoor active shooter threats.
- Wrote software for C2 of multiple custom LAN-based systems. Integrated 60+ devices in a month.

C++, Python, Boost, ASIO, Network Debugging

TRW Automotive, Marshall, IL   Sep '13 - Dec '13
Test Engineer
- Developed, upgraded & debugged in-use functional testing systems on active factory floor.
- Developed automated testing & data processing tools. Modernized in-house testing framework.

C++, VB.NET

Rose-Hulman Ventures, Terre Haute, IN   Jun '12 - Sep '13
Student Computer Engineering Intern
- Rapid development of electronics and software for numerous multi-discipline applications.

C, C#, PIC, PICBASIC, MSP430, Siemens PLC

Home Projects and Off-The-Job Experience   Ongoing
- Built router using APU2 SBC and OpenBSD. Includes custom firewall, local DNS, and ad-blocking.
- Created self-hosted file cloud using Nextcloud, feat. online office suite, content-sharing, and more.
- Modded DLNA software to spoof file types presented to TV to bypass filtering of transcoded media.
- HackTheBox; Custom Christmas lights; C++ NMEA parser; Snow report widget; ... too much to list!

C++, C, Python, Lua, Bash, Unix, PowerShell, Docker, Cron, Git, Embedded Linux, and much more!