



Matthew Reeve

Objective

Embedded Systems, Developer, Computer and Network Support Technician, Networking

Employment

November 2016 - now - **Ubiquiti, Inc.** (formerly Ubiquiti Networks Inc.)

Firmware Engineer for UniFi Wireless lineup

- Worked with both Qualcomm Atheros and MediaTek 802.11 WLAN solutions
- Worked with Qualcomm Atheros, Mediatek, and Annapurna Labs / Amazon alpinev2 SoCs
- Worked in a team to troubleshoot and engineer solutions for high priority customer-reported firmware issues.
- Worked closely with the Quality Assurance department to troubleshoot issues
- Brought up proprietary vendor WLAN drivers in an OpenWRT/LEDE based firmware to address shortcomings and inadequacies of silicon vendor provided Board Support Packages that affect long-term maintainability
- Effectively worked as a team to bring up a new, highly complex all-in-one product
- Ported LEDE and rewrote drivers for a discontinued product that the QA department was using in large quantity, saving the company countless hours of headache from the unstable and unmaintained software that they were using previously

November 2014 - October 2016 - **Keystone Solutions** (formerly Keystone Broadband)

Network Support Technician

- Solved tough networking issues remotely, and as needed, as part of an on-site team
- Communicated with customers as part of a problem-resolution process

January 2015 - October 2016 - **Wasatch Solutions;**

November 2013 - December 2014 - **TenX Networks**

Developer / Embedded Systems and Linux Expert

- Effectively solved customer issues with custom software, provided technical support to end-users, re-branded firmware, port OpenWRT to low-cost, foreign-sourced boards, and created processes for efficient mass-imaging of devices

September 2011 - December 2011 - **XMission**

Wireless Consultant

- Provided advice, software configurations, firmware modifications, equipment recommendations, on-site trouble calls, and other consulting relating to the implementation and maintenance of the wireless infrastructure that provides the public with access to free WiFi hotspots throughout the city.



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Employment (Cont'd)

December 2009 - September 2012 - **The Electroregeneration Society**
Volunteer, Board Member

- Similar to Computers for Kids.
- Performed component-level repair of more valuable equipment, set up systems to more efficiently implement processes (computer imaging, disk wiping, inventory management, etc), and served on the board of directors.

November 2010 - December 2011 - **Custom Computing**
Helpdesk / On-Site Support Technician

- I provided both telephone and on-site Windows and OSX desktop, Windows Server (Exchange), and network support to the company's clients on a part-time, as-needed basis.

January - March 2009 - **Computers for Kids**
Internship through the Salt Lake City School District

- Received donated computer equipment, performed testing, troubleshooting, and repairing of used computers, prepared working computers for delivery to the end-user (including installing Microsoft Windows and Office), prepared unusable equipment for responsible recycling, and organizing the warehouse.

Certifications

Authority	Certification	Year	New / Updated
CompTIA	A+	2009	New
CompTIA	Network+	2010	New
CompTIA	A+	2010	Updated



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Proficiency

- Working as part of a team with others to effectively and efficiently solve complex issues
- Self-starter; knowing when to ask for help, but not giving up every time I hit a speed bump
- Unbricking devices that have been badly corrupted, including any necessary soldering
- Using a variety of tricks built up over my professional and hobby experience with embedded systems to find creative solutions to common problems
- Providing assistance and alternative approaches to other team members who are stuck on a problem
- Quickly getting up to speed on new technologies and concepts
- Understanding of IP networking concepts
- Understanding of 802.11
- C, Bash shell scripting
- Usage of Git, mailing lists, Patchwork, GitHub, Confluence, and YouTrack
- OpenWRT/LEDE (www.openwrt.org www.lede-project.org) firmware (installation, use, modification, compiling, board ports, etc), especially on Qualcomm Atheros WiSoC devices
- Familiarity with ath9k, ath10k, and mt76 drivers, as well as the proprietary vendor drivers
- LuCI modification and branding
- Electronics repair/modification (including surface-mount soldering)
- Wireless antennas/equipment, site survey, microwave link planning
- Chillispot/Coova-chilli captive portal software
- OpenVPN, squid, Apache, MySQL, and a variety of other common open-source software
- Asterisk PBX software (standalone as well as integrated into FreePBX)
- Maintenance and use of both Unix-like (Linux, BSD, Mac OS X, etc) and Windows operating systems
- Troubleshooting of computer and networking issues, including remote-access and telephone-based troubleshooting
- HTML, CSS, PHP, JavaScript

Open-Source

<https://dev.openwrt.org/changeset/46961>

<https://dev.openwrt.org/changeset/41794>

<https://dev.openwrt.org/changeset/41767>

<https://dev.openwrt.org/changeset/41766>

<https://dev.openwrt.org/changeset/41450>

<https://dev.openwrt.org/changeset/41255>

<https://github.com/matthewreeve/>

References

References available upon request.