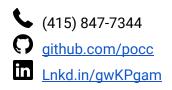


Ross Jacobs



EMPLOYMENT

Network Support Engineer

Cisco Meraki

Apr 2017-Sep 2019

Meraki (meraki.cisco.com): Cloud-Managed Networking Devices

- > Supported Cisco Meraki's products: Firewalls, Switches, Access Points, MDM, Cameras, Phone
- > Produced clear and detailed customer-facing deliverables, driving issues to completion
- > Resolved network issues by capturing and analyzing problem traffic with Wireshark
- Diagnosed bugs for review by engineering and communicated progress to stakeholders
- Leveraged Knowledge in Networking, Python, Ruby, bash, Git, Wireshark, Customer Service

IT Manager Vintners Inn Nov 2015-Apr 2017

➤ Managed website, network, 20 servers, and IT support for a hotel and event center (150 employees)

SOFTWARE PROJECTS

Multicap: Trigger simultaneous packet captures

Sep 2019-Present

- Chrome extension to enable fast iteration on troubleshooting complex networking problems
- Created <u>checkbpf.net</u> to validate <u>BPF syntax</u> as its being typed for capture filters
- Native binary (go) pipes Chrome downloads as bytestreams to Wireshark
- Utilized: Typescript, JS/CSS/HTML, Go, Chrome APIs, Google Analytics, Stripe

tshark.dev: Packet Analysis with Wireshark's CLI

Apr 2019-Present

- Visual roadmap on working with pcaps to point networking neophytes in the right direction
- Read how to Capture, Generate, Fuzz, Edit, Sort, Merge, Reformat, Sanitize, and Analyze packets
- Created searchable 6K+ packet capture database to find interesting packets/protocols
- <u>Utilized</u>: Wireshark, Hugo, bash, JS/CSS/HTML, Go, JQuery, Python, Perl, awk, sed, Google Analytics

Merlink: Meraki L2TP VPN Client

Apr 2018-Present

- Problem: Meraki does not a native VPN client for desktop computers, unlike many firewall competitors
- I received many calls about setup problems (and 20% of KB lookups), so I decided to fix it
- Creates a connection between your device and your corporate network behind a Meraki firewall
- Supports Windows, Macos, and Linux devices, and provides packages for each
- Utilized: Python, PyQt5, requests, Travis CI, Powershell, Applescript, bash/nmcli, PyPI, NSIS, FPM

${m \mathcal{V}}$ Open Source Contributions

Termshark (termshark.io): A terminal user-interface for tshark

Go

- Active contributor and maintainer
- **Wireshark** (<u>wireshark.org</u>): Network protocol analyzer

С

- Improved code quality by removing over 1000 lines of unnecessary code
- Fixed Wireshark's CRC6 validator for the MBMS sync header CRC (poly 0x6f)
- ➡ Pre-commit-hooks (pre-commit.com): Manage multi-language pre-commit hooks

C/bash

Created hooks and hook-tests for C linters: clang-format, clang-tidy, and oclint

EDUCATION

Sonoma State University

Rohnert Park, CA

Jan 2014-May 2016

- ➤ **Major:** Mathematics, B.A. (in-major GPA 3.6)
- > Minor: Computer Science
- > Programming Coursework: Computer Architecture, Databases, Software Design with Android
- Math Coursework: Numerical Analysis, Stats Modeling, Cryptography, Combinatorics, Discrete Math

Skills

Expert: Wireshark Proficient: Networking, Javascript, Go, Git, Python, Bash Familiar: Java, SQL, C