**ROD WOODMAN**

Sunnyvale, CA

<https://www.linkedin.com/in/rodwoodman> | [roderickwoodman@gmail.com](mailto:roderickwoodman@gmail.com)

<https://github.com/roderickwoodman> | <http://rodwoodman.com/portfolio.html>

**SUMMARY**

Experienced software developer with a background in designing tools used to analyze and troubleshoot complex systems. Balances systems thinking with attention to detail to solve whole-product, full-stack challenges. Can code and write. Looking to contribute quality work to a focused team in roles ranging from front-end data presentation to back-end data archiving. Draws inspiration from great information communicators like Edward Tufte and Steve Krug. Would fit well managing the flow of data between the UI and back-end of a business intelligence (BI) or Big Data platform.

**TECHNICAL SKILLS**

**Languages:** HTML, CSS, JavaScript, Python, Swift, PHP, SQL, C, Tcl

**Frameworks:** AngularJS, jQuery, Bootstrap, Highcharts, D3.js, Skeleton

Flask, Node.js, Express.js, Socket.io, MongoDB, Mongoose, CodeIgniter

**Tools:** APIs, Git, GitHub, Bitbucket, JIRA, LESS, MAMP, XCode, FireBug, Google Analytics, bash,

vim, Sublime Text 2, Adobe CS5.5, Photoshop, Illustrator, Moqups, Balsamiq, Omnigraffle

**Methods:** OOP, APIs, SPA, TDD, clickable prototype, wikis, pair programming, hackathons, agile,

responsive design, user-centered design (UCD), wireframes, card sorting, site maps

**EDUCATION**

**Coding Dojo |** Blackbelt, MEAN Stack | San Jose, CA

**UCSC Extension Silicon Valley** | Web Design Certificate | Santa Clara, CA

**Santa Clara University** | M.S. Computer Engineering | Santa Clara, CA

**California Polytechnic State University** | B.S. Electronic Engineering | San Luis Obispo, CA

**EXPERIENCE**

**TRUEPATH WIRELESS - San Jose, CA 2015-present**

*Truepath Wireless is an 11-person startup that provides terrestrial, wireless Internet to cruise ships near port.*

**Senior Software Engineer, NMS**

Responsible for the entire Network Management System (NMS) product. This code logs, displays, and reports all of the continuously-collected network quality data from dozens of mobile, proprietary endpoints. It includes device-side “agent” code (PHP/bash/cron), Web browser dashboard code (Bootstrap, jQWidgets, HighCharts, Google Maps, Leaflet), and server back-end code (Python, Flask, MongoDB).

* Redesigned the dashboard UI to support multiple endpoint devices and additional debug information. Mocked-up a new dashboard based on goals gathered from the VP and power users. Visually balanced current data with historical data based on best practices from other vendors’ dashboards. Implemented new server routes in order to surface the appropriate data for the given user role and endpoint type.
* Sped up the pace of NMS improvement s by releasing new code every 2-3 weeks.
* Collaborated with firmware and network engineers to integrate a new, third-party endpoint with a different stats-reporting mechanism. Added SSH functionality to the agent code, changed the stats collection timing, and adjusted dashboard plots to match the new hardware capabilities.
* Designed a compression algorithm that reduced the device-generated network quality stats files to 16% of their original size.

**CODING DOJO - San Jose, CA 2015**

*Coding Dojo is an immersive Web study program with numerous team programming experiences in 3 full stacks: LAMP, MEAN, and iOS. Hackathon held by Uber and their API. Lots of CRUD operations. See portfolio and GitHub.*

**Web Developer Resident**

* **Frappy Bird** - A puzzling iOS dexterity game where the objective is to orient the device in three dimensions (roll, pitch, and yaw) to match the randomly-generated target orientation. Winner of the one-day internal hackathon. Coded in a team of 3 using the Swift language and the XCode IDE. Processed the gyroscope’s attitude data retrieved from the CoreMotion API.
* **H&H Supplies** – A fictitious e-commerce store that sells horseshoes and hand grenades. Coded in a team of 3 using PHP, CodeIgniter, and mySQL. User portal includes product filtering and pagination, and checkout with Stripe API. Admin portal includes order filtering and pagination, and new product image upload to Amazon S3. Deployed to cloud using Amazon EC2, Ubuntu.
* **Stock Portfolio Analyzer** – Tool for visualizing personal stock positions at a high level and across multiple accounts. Supports 2 input sources: brokerage-generated CSV file and manual form entry. Angular front end aggregates the data and presents it in table format. Node server requests stock quotes and historical prices via Yahoo Finance API. The main D3 visualization conveys multiple dimensions of position data: size, performance, and performance trend.

**CISCO SYSTEMS - San Jose, CA 2005-2014**

**Diagnostic Software Engineer**

* Created an at-a-glance utility for displaying the physical connection points and the status of the dozens of reconfigurable Ethernet links within a chassis.
* Reduced 1000 pages of chip specifications of the company’s most complex chip into a 1-page visual representation that layered 6 variables across dozens of components.
* Designed, prototyped, and implemented the packet-steering logic for our test software that satisfied both the legacy and next-generation link topology for the company’s flagship Catalyst 6000 Internet switches.
* Defused a conflict between two senior developers by brokering an agreeable third design and then implementing it myself, to the great relief of the team manager.
* Presented a well-received series of code ownership transfer sessions with the China team via TelePresence. Tailored each technical presentation on the massive codebase to the feedback received.
* Championed the group wiki, improving team communication and distributing domain expertise.
* Designed an API routine for Ethernet switch programming that eliminated redundant programming steps and reduced debug time.

**HEWLETT-PACKARD - Cupertino, CA 2001-2005**

**Bringup Engineer, Hardware/Software**

* Ported a link exerciser tool, improved the user interface (UI) libraries, and still beat the schedule.
* Learned a new software codebase and hardware architecture in a few short months, enough to take full product ownership.
* Added fault injection into the chip design, improving the testability of a microprocessor subsystem and helping to beat the project schedule.

**INTERESTS**

I feel most rewarded when I can make sense of the many firehoses of information that are all around us, and communicate the most useful pieces to others. I love the perspective and the meta conversations that are needed before any of the details matter. And that is why I love **photography, writing, editing, and data visualizations** for their challenges of identifying and presenting only the most important data to the consumer. I am comfortable dealing with the subjectivity of what is important, and jumping between the text and visual forms of this data, whether through modern software technology or simple paper-and-pencil drafts, comes naturally to me.