

---

# Travis B. Hartwell

---

✉ travis@travishartwell.net

📍 Seattle, WA

📞 (208) 351-8390

🌐 iam.travishartwell.net

🔗 GitHub Profile

🌐 LinkedIn Profile

---

## Key Accomplishments (Across Organizations)

- **2022-2024:** Implemented dependency lock file update task runner and the associated infrastructure used to automatically update tens of thousands of Amazon internal projects on a regular basis.
- **2020-2022:** Implemented software and process improvements to scale the Amazon-wide automated build fleet 4x to handle hundreds of millions of build tasks weekly.
- **2018-2020:** Eliminated 10% of security issues Kindle organization-wide through the design and implementation of a system to identify and clean up unused infrastructure resources.
- **2015-2016:** Implemented fully automated formal test plans, including creating and deploying new clusters, executing benchmarks, gathering data, and generating reports.

---

## Technical Skills

- **Programming Languages:** Bash, C, C++, Common Lisp, Emacs Lisp, Erlang, Go, Haskell, Java, Javascript, Lua, Python, Ruby, Rust, SQL
- **Infrastructure and Automation:** CI/CD, Docker, AWS Services (S3, SQS, Cloud Watch, Cloud Watch Log Insights Queries), Linux packaging: Debian, Red Hat, and NixOS
- **Security and Dependency Management:** package and dependency analysis, build systems

---

## Professional Experience

### Amazon / Amazon Web Services

Seattle, WA

May 2017 - March 2024

*Throughout my tenure at Amazon and Amazon Web Services (AWS), I focused on designing, implementing, and operating tools and services that had organization- and company-wide impact, with my last four years focused on developer productivity and services.*

### Senior Systems Development Engineer, Code Foundations

November 2022 - March 2024

- Joined the Code Foundations team to lead **Amazon-wide software dependency upgrades** for Java and other language ecosystems, reducing security vulnerabilities and improving performance.
- Designed and implemented **dependency update task runner** in Go and associated custom worker fleet, automating updates for tens of thousands of internal software packages.
- Reduced a **company-wide JDK 8 upgrade campaign timeline** from 12 months to 4 months by developing a custom dependency and build request analysis tool.

### Senior Systems Development Engineer, Builder Tools

October 2022 - November 2022

- Promoted to Senior Systems Development Engineer.

### Systems Development Engineer, Builder Tools

August 2020 - October 2022

- Transitioned to the Builder Tools organization in AWS, focusing **scaling and automation** of the Amazon-wide build systems and fleets, used by **80,000+ technical staff** on **575,000 software packages**, executing **hundreds of millions of build tasks weekly**.
- **Led infrastructure scaling efforts**, growing automated build fleets from **1,500 workers to 5,000+ workers**, allowing for increased build traffic.
- **Reduced OS migration time by 75%**, executing a **2,500 server upgrade** in 3 months versus previous 12 month timelines.
- **Incident Management Leader** during major security events, including the **Log4Shell response**, overseeing the rebuild of **575,000 software packages Amazon-wide**.
- Mentored junior developers, resulting in **five promotions**.

## Systems Development Engineer, Kindle Reader

November 2018 - August 2020

- Transitioned to the Systems Development Engineer role, focusing on operational-focused software development efforts **organization-wide**.
- Eliminated **10% of security issues** across the organization, by designing and implementing a system in Python used to identify and clean up unused infrastructure resources (server hosts, software packages, CI/CD pipelines) owned by 40+ managers.
- Wrote **custom dependency analysis tool** in Ruby that enabled targeted update of dependency versions across a related set of packages. Used in the upgrade of several large systems in response to security campaigns.

## Support Engineer, Kindle Reader

April 2018 - November 2018

- Joined the Kindle Reader organization to **single-handedly** manage and support the Kindle feature WordWise; front-end implementation on EInk and Android app, management and update of backend systems used to process Kindle content, incident management, and escalated customer support.

## Support Engineer, Digital Commerce

May 2017 - April 2018

- Joined Amazon with the Digital Commerce organization, providing support to **a dozen other Amazon teams** for internal accounting systems used for royalty and other payments.
- Trained accounting system development teams how to troubleshoot, investigate and better utilize **their own software systems** used to calculate and pay royalties on content sales. Trained and supported the major digital business units (e.g. Kindle, Prime Video, Amazon App Store) on using that system.

## Basho Technologies

Remote

September 2015 - April 2017

### Professional Services Software Engineering Consultant

*Basho is the creator of the Riak distributed database; while on the professional services team I worked for Basho customers developing and testing solutions using Riak and the Riak Time Series database, particularly on deploying to Apache Mesos, focusing on performance and scale.*

- Wrote and executed fully **automated formal test plans** and report generation for clients covering performance testing, operational testing, and scaling testing.
- Implemented features and fixes for **Riak Explorer, the Riak Mesos Tools, and the Riak Mesos Framework** in Go and Erlang.
- Managed **provisioning, configuring, and administering clusters** running Mesos used by development teams for test and development using Ansible.

## Open Source and Community Contributions

---

*All personal open source code and contributions can be found on my GitHub profile.*

- Creator of MyCmd, a framework and tool for writing tools in Bash shell scripts, and MyProject, a project task runner written with MyCmd. A development log for these is [here](#).
- Creator and contributor to Nix Emacs, completion support for Nix OS configuration options in Emacs.
- Contributions of code, packages, and documentation to NixOS and Spacemacs.
- Contributed support, bug fixes, and documentation for the Twisted Project.

## Publications and Presentations

---

*Full list and details of publications and presentations found [here](#).*

- Presented at Open West 2016, "Spacemacs: The Best of Both the Emacs and Vim Worlds."
- Presented at PyCon DC 2004, "PyGtk and PyGnome Programming."
- Presented at PyCon DC 2003, "A Twisted Web Tutorial."
- Gave various presentations, primarily around Python, Emacs, and regular expressions, at local user groups from 2000-2011.
- Published code in colleague Marc Anderson's Master's thesis, "Adapting Minimum Temperature Forecasts to Fruit Orchards in the Intermountain West."

## Education

---

### B.S. in Computer Science

Utah State University

Fall 2003

Logan, Utah