

Radon Rosborough

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EDUCATION

- Harvey Mudd College Class of 2020, B.S. Computer Science (current GPA: 3.994)
 - Relevant coursework: Data Structures, Computer Systems, Operating Systems, Software Development, Programming Languages, Computability & Logic, Computational Complexity, Software Verification, Discrete Math, (Vector) Calculus
 - Extracurriculars: Prison Education Project, effective altruism club, badminton club, individual and group tutoring
- Boulder High School Class of 2016 (GPA: 4.8) • SAT: 2390 • ACT: 35 • AP: 15 exams taken, average score 4.9

WORK EXPERIENCE

Software Engineering Intern • **Quantcast** • San Francisco, CA 05/17 – 08/17

- Created, from scratch, administrator dashboard for viewing usage of internal ad campaign renewal application
 - App used heavily by on-call engineer and ~90% of team, achieving estimated 80% speedup for database maintenance
 - *written in* TypeScript, Node.js; *built by* Yarn, Browserify; *powered by* Sequelize ORM (Postgres/MySQL), Pug, Express; *deployed to* AWS Elastic Beanstalk *using* Docker, Terraform, Terragrunt (for DRY isolation of test/staging/production)
- Designed new Node.js configuration/environment management module and set of improved Terraform best practices, both of which are now used in several other company projects

Software Engineer • **ThinkTopic** • Boulder, CO 06/15 – 09/15 • 12/15 – 08/16 • 12/16 – 01/17

- Designed and implemented, from scratch, Clojure libraries for:
 - analyzing, visualizing, and comparing gradient descent algorithms in machine learning;
 - profiling and comparing collaborative filtering algorithms;
 - auditing code quality (documentation, test coverage, licensing) in company projects, including web-based visualizer
- Worked on frontend, backend, and Datomic database of price-quoting website (Clojure/ClojureScript)
- Worked on integrating collaborative filtering recommendations into style.com backend

PERSONAL PROJECTS *Emacs, workflow optimization, and open-source community-building on GitHub*

- *straight.el*: Next-generation, purely functional package manager for the Emacs hacker (~6,000 LOC, ~350 issues, ~30 pull requests, ~600 stars, ~100 unique clones/two weeks)
- *Hyperschedule*: Full-stack webapp for course search and scheduling, focusing on fast schedule adjustment (~4,000 users)
- *Calculus, Intuitive Explanations*: 67 pages of \LaTeX content, from limits to vector analysis, with 35 TikZ figures
- *el-patch*: Package for future-proofing Emacs customizations using verifiable s-expression diffs (~1,000 LOC, ~100 stars)
- *prescient.el*: Sorting and filtering for Emacs; improves on seven existing packages (~750 LOC, ~100 stars)
- *intuitiveexplanations.com*: Personal website built on Travis CI/CD using SCons, Hugo, \LaTeX , GIMP and hosted on Netlify
- *MazeGen*: Java application to generate laser-cutter schematics for randomly generated 3D marble mazes
- *Layerize*: Clojure application to generate laser-cutter schematics for cross-sectional models of 3D solids
- *Chrono Count*: iOS app (accepted to App Store) to manage countdowns under arbitrarily complex user-defined schedules

SKILLS

- *Languages*: {advanced} in Emacs Lisp, Python, \LaTeX ; {working knowledge} in Java, JavaScript (browser/Node.js), Zsh, Clojure, TypeScript; {previous experience} in C, Bash, Haskell, C++, ClojureScript, HTML, CSS, C#, Objective-C
- *Tooling*: {expert} in Emacs, macOS, Git; {working knowledge} in Heroku, Make, SSH, UNIX, Zsh, Docker, Pacman, Homebrew, Vim, Netlify, Travis CI, Tmux; {previous experience} in GDB, SCons, Leiningen, AWS, Terraform
- *Concepts*: workflow optimization, package management, distributed version control, web development, API design, functional programming, object-oriented programming, machine learning, gradient descent, neural networks, continuous integration

SELECTED AWARDS

- Solution to Putnam problem B3 published in AMM, 2018 • Bloomberg Global CodeCon Finalist, 2017
- Harvey S. Mudd Merit Award, 2016–2020 • National Merit Scholarship, 2016–2020
- Robert James Prize, 2017 • Boulder High School “Honorary Math Department Faculty Member”, 2016
- Bausch + Lomb Outstanding Junior Science Award, 2015