

# Jack M. Rosenthal

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## Education

### Colorado School of Mines

GPA: 3.52

- BS Computer Science (December 2017)  
Combined BS/MS (May 2019)

**Notable courses** – Game Theory and Networks\*, Elements of Computing Systems\*, Artificial Intelligence, Web Programming (Independent Study), Principles of Programming Languages, Computer Simulation, Algorithms, Database Management, Operating Systems, Software Engineering, Discrete Mathematics, Data Structures, Computer Organization

\* = currently enrolled

## Technical Skills & Interests

- **Programming Languages** – Most experienced with Python, C; some experience with PHP, JavaScript, Ruby, Haskell, C++; basic familiarity with many other languages
- **Student Organizations** – Mines ACM Chapter (President: 2016/17, 2017/18), Mines Linux Users Group (President: 2016/17, 2017/18), Mines ACM-W Chapter (Secretary: 2017/18)
- **Positions, Honors, and Awards** – CS@Mines Faculty Choice Award: For Making CS@Mines a Better Place (Fall 2017), Mozilla Open Source Student Leader (2017), Metcalfe C-MAPP Fellow (2017), LGS Innovations C-MAPP Fellow (2016)






## Relevant Experience

- **Colorado School of Mines** Golden, CO  
Research Assistant (C-START: Colorado Strategic Approach to Rally Teachers) Spring 2017 – present
  - Designed and piloted 3 new CS Unplugged activities for use in UNC Teacher Education Computational Thinking course (Spring 2017)
  - Designed and led Python K-12 Professional Development Workshop (Summer 2017)
- **Colorado School of Mines** Golden, CO  
Linux Systems Administrator Spring 2016 – present
  - Systems Administrator for Linux servers owned by Dr. Tracy Camp
  - Administration of PostgreSQL, MySQL, Apache, lighttpd, postfix
- **Colorado School of Mines** Golden, CO  
Teaching Assistant Fall 2016 – present
  - CSCI-101: Intro to Computer Science: Redesigned curriculum (Summer 2017)
  - CSCI-274: Intro to Linux: Grading assignments, office hours, providing answers on student help forum (Fall 2016, Spring 2017, Fall 2017)
  - CSCI-423: Computer Simulation: Grading assignments (Fall 2017)
- **Steamboat Springs Family Medicine** Steamboat Springs, CO  
IT Support 2009 – present
  - Administrate Microsoft Active Directory services, Microsoft Office 365, and Practice Partner EHR software
  - Administrate VoIP phone system using Asterisk
- **Steamboat Networks** Steamboat Springs, CO  
Founder & CEO Spring 2013 – present
  - Provider for VoIP phone systems and service
  - Wrote Least Cost Routing software, VoIP billing software, and a web application for managing accounts

- **Camp Inc. Business Academy** Steamboat Springs, CO  
Summer 2016, Spring 2017  
Business Specialist
  - Designed introductory programming course using Python and Raspberry Pis
  - Taught coding track to 6th–12th grade students (Summer 2016)
  - Adapted course as after school coding camp for 4th–6th students (Spring 2017)
- **Camp Inc. Business Academy** Steamboat Springs, CO  
Summer 2015  
3D Printing and Design Instructor, Counselor
  - Counselor for campers in 6th–9th grade
  - Taught 3D printing and design course using SketchUp
- **Creative Bearings** Steamboat Springs, CO  
Fall 2012 – Spring 2013  
Web Development Intern
  - Worked with clients to design websites
  - Designed E-commerce website using PHP

## Projects & Open Source Contributions

 = source on GitHub

-  **Parqyng Lots** (Fall 2017) – A Hackathon project to measure the amount of cars in a parking lot and display live information on a web application using the Xilinx PYNQ. This project won 1st Place at the Xilinx PYNQ Hackathon in Fall 2017.
-  **ACM Website** (Present) – A website for the Mines ACM Student Chapter to facilitate club communications. (<https://acm.mines.edu>)
-  **CS@Mines Puzzle Challenge** (Summer 2017) – A logic puzzle competition open to all students, faculty, and staff at Mines. For the first competition in Fall 2017, 94 people participated. The open source website is at <https://puzzles.mines.edu>.
-  **Debannerizer** (Fall 2016) – Although the name may sound obscure, the Debannerizer is a tool written in Python which scrapes Mines' Self-Service Banner website for course schedules and creates a normalized database of the information using the SQLAlchemy ORM.
- **Mines Linux Users Group Website** (Present) – A website written using the TurboGears framework for Python designed to archive and display the Linux Users Group's talks and information, and communicate with our members about current happenings. (<https://lug.mines.edu>).
-  **Three Layout** (Fall 2015) – A keyboard layout optimized for English typing, as well as programming. Designed using a program to optimize the path length of typing a corpus of books and source code.
- **JackFax** (2013) – A multiuser internet faxing application written in PHP which features options to use T.38 (VoIP faxing) or a fax modem, as well as provides automatic cover sheet generation, collaborative contact management, and an interactive document scanning interface using scanners wired up to Raspberry Pis.