# Ransom Williams

[ransomw.github.io](ransomw.github.io)

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## SOFTWARE ENGINEER
*Data / Backend*

Developer that enjoys building products that are pleasing to use and makes people's lives easier.

## TECHNOLOGIES

*Programming Languages*:  Python, C, Clojure, Javascript, Go, Lua, typescript

*Domain-specific Languages, Dialects, and Preprocessors:*  SQL (SQLite, Postgres), HTML, CSS

*Server-side Web Stack*:  Flask/werkzeug, SQLAlchemy, aiohttp

*Reactive Web Client-sides:*  Reagent and Rum React wrappers with or without Re-frame and Citrus state containers in CLJS; React in JS with alt.js state container

*Testing Utilities*:  pytest, Python standard library; standard library in Clojure + doo and devcards for Clojurescript; tape+proxyquire in JS with Enzyme to emulsify React components

*APIs and Standards*:  components and spec in Clojure; system-level io (sockets, subprocesses); redis pubsub; [wip] MongoDB, OAuth, SAML

*Tools*:  emacs, git, magit, acme, npm, tmux, AWS EC2, [wip] Docker, Kubernetes, Jenkins (user-level), sam, Visual Studio Code

## CONCEPTS

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| HTTP | RESTful APIs | Object Oriented Programming | Functional Programming |
| Agile | CSP, coroutines | Pair Programming | Finite Dimensional Vector Spaces |

## WORK EXPERIENCE

**OneConcern, Menlo Park, CA**          **Software Engineer**                    **Mar 2018 - Nov 2022**
- Contributions to github.com/oneconcern/datamon an S3/GCS frontend, "git for data storage"
- Increased datamon throughput by writing CSP/parallelized uploads and downloads
- Debugged golang memory allocation with pprof by using freelists
- Initial golang work experience, worked in Python and used type annotations
- Helped build and maintain data-engineering and backend services' application code in Python
- Deployed to Kubernetes and used Argo Workflows project as well as GCP pubsub
- Initial GIS work experience including PostGIS, geopandas, toolz-flavored Shapely, etc.

**Juji, San Jose, CA**                    **Full Stack Developer**                    **Jan 2018 - Feb 2019**
- Artificial Intelligence conversation business concept
- Rewrote front-end routing with a maintainable implementation; added features to pages
- Initial work experience with full-stack Clojure web development
- Leveraged existing Python experience building service wrappers around ML prototyping
- Collaborated with experienced team-members
- Continued maintenance and development of an established Clojure project

**WORK EXPERIENCE, continued.**

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| **Web Developer Consulting** | **Mar 2013 - May 2017** |
| **Bargible, Los Angeles, CA** | **Apr 2016 - May 2017** |

- First-hire founding engineer at online game/ecommerce hybrid business concept startup
- Deployed on cloud for multiple computers from initial concept
- Extensive updates to existing implementation, both technical and feature-driven
- Continued Python experience, particularly Python 3
- Initial work experience with then-modern frontend JS patterns
- Broadened understanding of the requirements management picture through daily Scrum sessions to satisfy a working product
- Introduced Alt.js+React frontend patterns to other engineers while improving the Flask backend service to include aiohttp websockets and a redis service layer hands-on with the CTO

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| **Filentech, Manila, Philippines** | **Oct 2014 - Dec 2014** |

- Built a web-based accounting system and cash portal for an online casino
- Java backend with Play, simple AJAX frontend with jQuery

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| **Cinafides Consulting, Chengdu, China, Systems Developer** | **Mar 2013 - Jun 2014** |

- Rapid prototyping of web and mobile applications
- Hacked out some short-term projects
- Gained business experience and client-facing insight

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| **Synaptics, Santa Clara, CA** | **Simulation Engineer** | **Mar 2011 - Jul 2012** |

- Designed, developed, and maintained automated hardware testing framework
- Firmware build system edits

**EDUCATION**

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| **California Institute of Technology** | **Southwest University for Nationalities** |
| Bachelor of Science in Mathematics | Mandarin Language |

**ACTIVITIES & ADDITIONAL WORK**

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|---|---|
| **Independent Study,** *Kathmandu, Nepal* | **Jun 2017 - Aug 2017** |

Practiced JS and Clojure, reading, math, CS, and NLP texts

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| **Volunteer Tutoring,** *Los Angeles, CA* | **Sept 2015 - May 2017** |

Off-and-on weekly volunteering through School on Wheels

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| **Cognitive Science,** *Los Angeles, CA* | **Oct 2015 - Dec 2016** |

Participation in weekly meetings at Prof. L. Shams UCLA lab

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| **Tutoring,** *Los Angeles, CA* | **Sept 2015 - Apr 2016** |

Private Lessons, a tutoring center (2015 only), and volunteering through School on Wheels

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| **ESL Teacher,** *Chengdu, China* | **Aug 2012 - Feb 2013** |

Taught classes at iSmart, a locally-owned and -operated private English school

**PERSONAL INTERESTS**

| Woodwinds/Guitar | Novels | Cycling | Running |
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