

CONTACT
INFORMATION15 Connecticut Ave
Somerville, MA 02145rcoh@rcoh.me

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

June 2013

Computer Science and Engineering (6–3), GPA: 4.9/5.0

Relevant coursework:

Distributed Systems Engineering (6.824)

Computer Systems Security (6.858)

Performance Engineering (6.172)

Operating System Engineering (6.828)

TA for Computer Language Engineering (6.035)

Advanced Datastructures (6.851)

WORK
EXPERIENCE**AWS**, Melrose, MA (Remote)

Senior Software Engineer, July 2020 — Present

- Design and build [smithy-rs](#), a client and server code generator for the [Smithy IDL](#). [smithy-rs](#) generates clients for the AWS SDK, dozens of internal AWS services, and several external customers.
- Found and lead team to build [AWS SDK for Rust](#).
 - + Work with Rust language and SDK stakeholders to design an SDK balancing ease-of-use, flexibility and performance. The Rust SDK is among the fastest AWS SDK with overhead of 20-30 μ s per request.
 - + Build wire-level traffic record-and-replay framework for deterministic testing and fault simulation.
 - + Implement high-performance parser and serializer generators for XML and JSON.
- Lead organization-wide initiative to code generate endpoint resolution across all SDKs. This reduces custom code and implementation time while eliminating a class of common SDK bugs.

Self Employed, Redwood City, CA

Freelance Software Engineer, February 2016 — 2020

- Consult on key scalability and architecture decisions
- CTO/Senior engineer for hire at small startups (architect/implement MVP, design interview & engineering process process, etc.)
- Join companies for 1-3 months to finish high-value projects.
- Recent Projects:
 - + [Angle grinder](#), a popular CLI app written in Rust for log analytics
 - + [Crossword.Tools](#), a tool for creating Newspaper-quality crossword puzzles. Core fill algorithm written in Rust, compiled to WASM.
 - + Architect, code and deploy a new webhooks delivery architecture that reduced latency by 60x
 - + Design a domain specific language that compiles to Spark
 - + More projects at <https://rcoh.me/hire-me>

Sumo Logic, Redwood City, CA

Software Engineer Lead, February 2014 — February 2016

- Lead search performance team to improve search latency and throughput
- Developed optimizer for the Sumo Logic query language
- Authored [open source Elasticsearch library](#)
- Scala, Java, MySQL, Elasticsearch, Cassandra, Lucene, AWS

Filepicker.io, San Francisco, CA

Principal Engineer, January 2013 — January 2014

- Scaled highly available service to >300QPS while reducing the number of servers required
- Optimized use of MongoDB, Nginx, Haproxy, uWSGI
- Python, Node.js, iOS, MongoDB, Postgres, Haproxy, Nginx, uWSGI, Flask, EC2, S3

SKILLS

Rust, Java, Scala, Python, Go, (my/Postgre)SQL

INTERESTS

rock climbing, mountain biking, trail running