

Joshua Liebow-Feeser

Software Engineer, Google
San Francisco, CA

ScM Computer Science, Brown University
ScB Computer Science, Brown University

github.com/joshlf
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For selected projects, see
joshlf.com/projects

For talks and lectures, see
joshlf.com/talks-and-publications

SUMMARY

My main interests are in security, networking, and distributed and peer-to-peer systems.

LANGUAGES

Rust, Go, C, BASH Scripting
Familiar with C++, Java, Python, PHP, Javascript, SQL

EXPERIENCE

Software Engineer, Fuchsia Operating System Google

San Francisco, CA — April 2018 - Present

- Lead developer of [Netstack3](#), a platform-agnostic networking stack
- Lead team of 5 engineers, produced ~50K lines of code to date
- Gave [conference talk](#) on design of Netstack3
- Author, maintainer of [Mundane](#) cryptography library
- Author, maintainer of [zerocopy](#) library for memory-safe zero-copy parsing/serialization
- Founder of [Rust Secure Code Working Group](#)

Security Engineer Cloudflare

San Francisco, CA — August 2016 - January 2018

- Developed [Keyless SSL](#) for internal and external applications
- Reduced Keyless SSL request latency by 50%
- Developed [LavaRand service](#) for producing entropy from lava lamps
- Performed security reviews of products and infrastructure
- Designed technical and legal security-related policies

Lead Course Designer/Head Teaching Assistant Computer Systems Security (CS 1660)

Providence, RI — Fall 2015/Spring 2016

- Following development/teaching of CS 1951E, asked to redesign department's main security course using CS 1951E as a model
- Ran course of over 60 students, two professors, 9 TAs
- Wrote, gave roughly one third of the lectures (joshlf.com/talks-and-publications)

Software Engineering Intern Google, Perimeter Security

Mountain View, CA — Summer 2015

- Designed, developed software IPsec-encrypted VPN between Google offices
- Reverse-engineered Quagga's Zebra API protocol

Head Teaching Assistant Computer Systems Security: Principles and Practice (CS 1951E)

Providence, RI — Spring 2015

- Developed new course from scratch (syllabus and assignments) with enrollment of over 60 students, 7 TAs
- Coordinated team of multiple professors teaching various lectures
- Gave lectures (joshlf.com/talks-and-publications); held office hours

Co-Head Teaching Assistant Introduction to Computer Networks (CS 1680)

Providence, RI — Fall 2014

- Participated in course development
- Developed course software including full custom TCP/IP stack
- Held office hours, responded to online questions, ran interactive grading

EDUCATION

Tufts University

3 Semesters

Relevant Coursework:

- CS 0040 - Machine Structure and Assembly Language Programming
- CS 0105 - Programming Language Theory
- CS 0150 - Internet-Scale Distributed Systems
- CS 0165 - Cryptography

Brown University

ScB, ScM, Computer Science

Relevant Coursework:

- CS 0510 - Models of Computation
- CS 1260 - Compilers and Program Analysis
- CS 1380 - Distributed Systems
- CS 1410 - Introduction to Artificial Intelligence
- CS 1510 - Introduction to Cryptography and Computer Security
- CS 1570 - Design and Analysis of Algorithms
- CS 1660 - Computer System Security
- CS 1670 - Operating Systems
- CS 1680 - Computer Networks
- CS 1760 - Introduction to Multiprocessor Synchronization
- CS 1970 - Adversarial Networks (leader of group independent study)
- CS 2950-U - Special Topics in Networking and Distributed Systems
- CS 2951-E - Topics in Computer System Security
- APMA 1710 - Information Theory

Notable Projects:

- Wrote full custom TCP/IP stack (CS 1660)
- Wrote distributed file system (CS 1380)
- Wrote most of a kernel (CS 1670)
- Penetration tested Brown's building access system (CS 2951-E)

AWARDS & HONORS

Dean's List, 2011-2012 (All semesters, Tufts University)

Note: Brown University does not name students to a Dean's List

1st place, CSI CyberSEED Capture the Flag Challenge (with three other students)

Awarded a *Great Teaching Assistant* award "for outstanding service to CS 1951E"
(nominated by students)

REFERENCES

Brown University Department of Computer Science

Roberto Tamassia - rt@cs.brown.edu

Bernardo Palazzi - bernardo@cs.brown.edu

Rodrigo Fonseca - rfonseca@cs.brown.edu