

# Joshua Liebow-Feeser

Information Security Engineer,  
Cloudflare  
San Francisco, CA

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

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For selected projects, see  
[joshlf.com/projects](https://joshlf.com/projects)

For talks and lectures, see  
[joshlf.com/talks-and-publications](https://joshlf.com/talks-and-publications)

## SUMMARY

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

## LANGUAGES

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

## EXPERIENCE

### Security Engineer Cloudflare

San Francisco, CA — August 2016 - Present

- Develop [Keyless SSL](#) for internal and external applications
- Reduced Keyless SSL request latency by 50%
- Develop [LavaRand service](#) for producing entropy from lava lamps
- Perform security reviews of products and infrastructure
- Design 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](https://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](https://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

### Independent Research Scalable Flat Networking Protocol

Providence, RI — Fall 2013

- Developed ad-hoc, full-mesh, flat, network-layer routing protocol
- Measured performance analytically and experimentally

## Independent Research

### Distributed, Decentralized, Secure Message-Passing

Boston, MA — Summer 2012

[gitorious.org/nyetwork/pushnet](http://gitorious.org/nyetwork/pushnet)

- Peer-to-peer message-passing
- Highly adversarial environment
- Intended for circumventing censorship in oppressive regimes

## 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*

Won 1st place in the CSI CyberSEED Capture the Flag Challenge with three other Brown students

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

## REFERENCES

Roberto Tamassia, Brown University Department of Computer Science:  
[rt@cs.brown.edu](mailto:rt@cs.brown.edu)

Bernardo Palazzi, Brown University Department of Computer Science:  
[bernardo@cs.brown.edu](mailto:bernardo@cs.brown.edu)

Rodrigo Fonseca, Brown University Department of Computer Science:  
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