

STEPHAN BOYER

stephanboyer.com
stephan@stephanboyer.com
+1 (707) 540-5093

EXPERIENCE

- **SENIOR SOFTWARE ENGINEER, INFRASTRUCTURE**
Airbnb | February 2015–present
Defined the integration testing strategy for the entire engineering org. Currently lead its execution.

Led the development of a container-based CI platform. Achieved **100% adoption** (430 repositories).

Designed and built a fully automated pipeline to track unit test reliability, notify owners of flaky tests, and ultimately disable them if necessary. Drove the build failure rate **from 30% down to < 1%**.
- **SOFTWARE ENGINEERING INTERN**
Dropbox | Summers 2012 and 2013
Prototyped an enterprise product that became Dropbox Business. Revamped the photo thumbnailing infrastructure to optimize compute cost and improve image metadata handling.
- **TEACHING ASSISTANT**
MIT 6.042 Mathematics for Computer Science | Fall 2013
MIT 6.170 Software Studio | Fall 2012
Developed the curriculum and graded student work.
Led recitations and held weekly office hours.

RECOGNITION

My work has been featured in high-profile media outlets including TechCrunch, Mashable, Engadget, TIME, The Discovery Channel, The Boston Globe, HuffPost, et al.

- **1st PLACE**
MIT 6.470 Web Programming Competition | 2012
Asler: a web-based platform for learning American Sign Language.
- **\$100,000 HARVARD CATALYST PILOT GRANT**
Innovations in International Health | 2011
CoolComply: a solar powered refrigerator used to store medication and monitor adherence for MDR-TB (multi-drug-resistant tuberculosis) patients.

EDUCATION

- **MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)**
M.Eng. Electrical Engineering and Computer Science
B.Sc. Electrical Engineering and Computer Science
Concentrated in Theoretical Computer Science.
Graduated in June 2013.

SELECTED SIDE PROJECTS

- **NETFLIX PARTY**
netflixparty.com
A Google Chrome extension to synchronize Netflix video playback across multiple devices and add chat capability. Used especially by long-distance couples. **8 million+ users**. Sold to a private buyer.
- **KITESTRING**
kitestring.io
A personal safety app. **100,000+ users**. Acquired by Travelwifi (formerly Tep Wireless).
- **TOAST**
github.com/stepchowfun/toast
A tool for running tasks in containers. Used as a CI tool or development environment by companies such as Tilt and Quartet. 600+ stars on GitHub.
- **FORMALLY VERIFIED PROOFS**
github.com/stepchowfun/proofs
Most notably: an original machine-checked soundness proof for the Girard-Reynolds polymorphic lambda calculus in Coq. One of only a few known to exist.
- **PAXOS**
github.com/stepchowfun/paxos
An Rust implementation of Leslie Lamport's *single-decree Synod* (a.k.a. "Paxos") algorithm for distributed consensus. Slides available upon request.
- **ORGANIZER, BAY AREA HASKELL USERS GROUP**
meetup.com/bay-area-haskell-users-group
Meetup group for 1,200+ Haskell enthusiasts in the Bay Area. Regularly hold meetups with invited speakers.