

## SUMMARY

Full-stack problem solver with years of experience building healthy teams; shipping maintainable code on deadline. Turned on by clean design, security, and the unknown. Seeking mission-driven team that values experimentation, rigor, and compassion.

### WORK EXPERIENCE

# **Technical Lead at Quantstamp**

May 2018 - Dec 2018

Built ERC-20 token payment gateway for YCombinator Demo Day release of flagship smart contract auditing product Architected and led implementation of monitoring dashboard to detect smart contract vulneratilities in realtime Worked with CEO and CTO to design and hit monthly release cycle goals; Ran standups and sprint-planning meetings Mentored team in agile methodologies, clean design principles, best practices in React/Redux/Node.js

#### Contributor at Riseup.net

lan 2018 - Mar 2018

Helped extend accounts management backend for best-in-class secure email provider to allow it to host email for 3rd parties with custom domains

#### Lead Engineer at Affinity.works

Jan 2018 - Jun 2018

Built custom bulk data-syncing infrastructure for campaign to pass nation's first statewide carbon tax

Reduced response times for Affinity's flagship grassroots volunteer management tool by 10x

Increased new user adoption by leveraging Rb-NaCl to provide clients with secure custom 2-step OAuth signup flow

#### Contract Full Stack Engineer at LittleSis.org

Aug 2017 - Jan 2018

Facilitated partnerships with large institutional research orgs by designing and implementing permissioned classification schema to give data donors partial ownership of collectively shared data

#### Advisor, Contributor at LEAP Encryption Access Project

Mar 2017 - Jul 2017

Shaped strategy to fund development of best-in-class open-source email/VPN software by spinning off for-profit arm Overhauled Android VPN client's toolchain to facilitate onboarding from new contributors

## Backend Software Engineer at SoundCloud

Mar 2017 – Jun 2017

Extracted subscription quote microservice in Scala from monolithic Rails app to increase site performance and reliability Streamlined process for identifying and fixing bugs in monthly financial reporting system

## Senior Software Engineer at UpLevel Security

Sep 2016 - Mar 2017

Increased early-phase startup's ability to pivot toward new customers by leading team-wide redesign of legacy React codebase, yielding greater testability, performance, and code reuse

Successfully engaged top leadership to re-prioritize paying down tech debt after demonstrating current architecture would fail at throughput levels required by new customers

Designed replacement architecture and spearheaded its implementation by encouraging team-wide adoption of rigorous practices in design, testing, and profiling

## Senior Software Developer at ThoughtWorks, Inc.

Jun 2016 - Sep 2016

Delivered user-friendly order fufilment system for Fortune 50 logistics company

Drove adoption of security best practices by co-facilitating daylong 'AppSec101' trainings

Increased team cohesion by coaching peers on functional design principles in React/Redux apps

#### Creator, Tech Lead at where@

Jun 2015 - May 2016

Designed and shipped MVP for security-conscious location-sharing app, including Android clients in Java and React Native, web app in React, and server in Scala using websockets and reactive streams to protect users by eliminating persistent server-side data

Led team of 8 volunteer developers from ThoughtWorks NYC -- including coaching, pairing, code review, test design, sprint planning, story grooming, consensus-building around architectural decisions, coordinating work across 4 parallel dev streams

Received mentorship in threat-modeling, cryptography, and opsec from senior ACLU/Debian/Tor security technologist Daniel Kahn Gillmore; supervised implementation of Public Key Pinning in Android, privacy-focused alternative to Google LocationProvider in React Native

## Web Developer at LittleSis.org

Mar 2015 - Jun 2015

Drove adoption and funding by adding annotation-driven slide-show UI to site's social network visualization suite

Decreased turnaround time for new features by migrating vertical slice of visualization stack from monolithic, untested PHP/jQuery to modular, testable Rails/React design

#### Web Developer at BK Shift

Jan 2014 - Jul 2014

Delivered working full-stack Rails app in 3 months, used TDD and Agile best practices to meet evolving business needs over project lifetime.

Helped double weekly revenues by reducing time needed to allocate 300-400 weekly shifts to 100-150 riders by over 50% Used 1-week Agile sprints to ensure continuous deployment of usable features, front-load completion of learning-rich user stories, provide client with a burn-up chart

### Activist & Researcher at Occupy Wall Street

Sep 2011 - May 2013

Conceived and project-managed Occupy The Boardroom, a web app that sent and displayed personal emails from ordinary people directly to bank CEOs -- later published as book by n+1

Coordinated Occupy Sandy's needs assessment canvass in the Far Rockaways, including design and implementation of distributed data-input system to support to overtaxed on-the-ground coordinators

Coordinated tactical framework development, trainings and communications infrastructure for mass mobilizations of tens of thousands of people in NYC's financial district

## EDUCATION

## **Recurse Center, Programming Retreat**

Jan 2019 - Present

Shipped signalboost, an encrypted mass text blast tool for activists written in node, overlaid on top of the signal messaging service. Implemented several basic cryptographic protocols in Rust.

#### Recurse Center, Programming Retreat

Nov 2014 - Feb 2015

Wrote chat server and BitTorrent client in Scala from scratch; completed readings and exercises on algorithms, monads, concurrency, and recursion.

# Structured Mentorship, Guillaume Marceau (M.Sci., Brown; PhD Candidate, WPI)

Mar 2014 - Nov 2015

Completed weekly project-driven training in clean design, algorithms, complexity analysis, test-driven development, functional programming, etc. Co-founded learning collective for activist programmers.

## Harvard University, Performance & Media Studies

Sep 2000 - Jun 2007

Summa Cum Laude Thesis, High Honors in Major, 3.27 GPA

## SKILLS

Languages (ordered by strength): JavaScript (ES6/TypeScript), Ruby, Scala, Rust, Java, Clojure, Python, Go

Javascript Libraries: React/Redux, Express/Koa, Mocha/Chai/Sinon, Lodash, Sequelize, Immutable.js, RxJs

JVM Libraries: Akka-Streams, Akka-Http, Cats, Slick, ScalaTest, RxJava, JUnit, Mockito, Robolectric

Dev Ops: Ansible, Docker, Heroku builpack design, Go-CD/Concourse.ci, Nginx configuration, Assorted automated testing tools

Security: Threat modeling, AppSec (OWASP Top 10), Library-level cryptography (libsodium, etc.)