

PROFESSIONAL EXPERIENCE **Shopify Inc., Toronto, ON, Canada**

July 2022 - present

Senior Engineering Manager, Infrastructure Security

Support a team of 3+ people managers and 18+ software/security engineers. Reported up to Production Security.

Block Inc. (fka Square Inc.), Toronto, ON, Canada

September 2020 - June 2022

Engineering Manager/Lead, Privacy Engineering

People management for 5-8 engineers. Conducted annual planning and roadmap strategy/vision for the team, in coordination with other security management. Facilitated cross-functional projects and collaborations across product, platform engineering, security, and legal teams. Conducted hiring, performance reviews, promotions, career development, etc. Served on hiring and promotion committees. Successfully advocated for funding for new types of data inventory/risk engineering projects.

Block Inc. (fka Square Inc.), San Francisco, CA, USA

May 2015 - August 2020

Senior Security/Software Engineer, Information Security

Privacy Engineering: Designed/built traffic egress review systems to support vendor integrations. Co-designed/built GDPR/CCPA automation tooling; major contributions were the cryptographic design for vaulting sensitive privacy request data, plus JIRA integrations to support interactions by legal, operations, and engineering teams.

Mobile Security: Productionized anomaly detection model generation to support PCI SPoC (Hadoop to Spark). Gained 5x speedup and more visibility into our data usage.

Security Infrastructure: Migrated tokenization system to use HSM-backed fingerprints. Built robust, shardable backfill system with administrative UI and metrics for Java microservices. Managed internal PKI including certificates management/distribution; created custom secrets tooling and automation. Served as primary key manager for PCI PIN tasks; supported PCI audits.

Misc Information Security: Performed vendor security assessments; reproduced bug bounty reports; served as infosec helpdesk; developed/refined security-specific interview questions and hiring guides (product security, security infrastructure, privacy engineering, privacy program management).

EXTRA CURRICULAR**BSidesSF, San Francisco, CA, USA**

November 2018 - present

Conference Organizer (Staffing)

Managed staffing of 350+ volunteer shifts with close to 200 volunteers, for a total of 1200+ hours. This includes volunteer registration, coordinating with other leads for staffing requirements (especially Public Safety), managing communications with volunteers around expectations and training, and making any last-minute decisions around staffing during the conference itself. Provided support to other leads related to shirt design, venue layout planning, incident response.

2020 pulled in over 2300 attendees, including members of press and various corporate sponsors. Presentations were in 4 main tracks, with notable features being several Off-The-Record talks, livestreaming, a track entirely in an IMAX theatre, several villages, and an on-site CTF.

EDUCATION*Some PhD, Computer Science*

September 2011 - May 2015

Research Areas: Stylometry (NLP, ML), Deanonimization, Information Retrieval, Privacy
University of Waterloo, Waterloo, ON, Canada*Bachelor of Science, Computer Science*

August 2008 - May 2011

Concentrations: Networks, Security, Software Engineering, Artificial Intelligence
Southern Illinois University, Carbondale, IL, USA