

David Freeman

dfreeman@delphiresear.ch

(+1) 650.687.7196

<https://www.delphiresear.ch>

OVERVIEW

I help platforms detect and stop fraud and abuse, turning escalating risks and chaotic organizations into managed programs. I have both hands-on and leadership experience in every step of the security lifecycle: threat assessment, system design, model building, production deployment, and continuous iteration.
Specialties: Anti-scraping, Authentication, Fake accounts, Scams, Risk quantification, Building security teams.

EXPERIENCE

Delphi Research Los Altos, California USA
Principal 2026–present

- Working with clients to quantify abuse threats, measure defense efficacy, and build attack-resistant systems.
- Expert advisor for Korea Internet & Security Agency (CAMP CyberNet Program).
- Advisor for OWASP Security Culture Project.
- Chair of Usenix Security 2026 Enigma Track: solicited talks, led review process, ran speaker coaching.

Meta Platforms, Inc. (formerly Facebook, Inc.) Menlo Park, California USA
Research Scientist/Engineer 2017–2026

- **Verification Tech Lead** (1y): Led measurement-unification effort across fragmented authentication teams; set architecture and component-level success criteria for a consolidated detection platform.
- **Anti-Scraping Tech Lead** (6y): Took large-scale data scraping from an executive-priority risk to a controlled problem. Built AI/ML detection, closed data-leakage vulnerabilities, set strategy with execs.
- **Site Integrity Engineer** (2y): Built ML systems to block spam and fake engagement at Facebook scale.
- Published 5 research papers, organized “Abuse@Scale” conferences, served on Usenix/CCS committees.

LinkedIn Corporation Mountain View, California USA
Senior Manager, Software Engineering 2012–2017

- Transformed a team of analysts into an ML engineering organization, replacing case-by-case manual response with automated detection and response.
- Scaled defenses as LinkedIn’s growth made it a higher-value target for adversaries.
- Published 4 research papers, filed 9 patents, chaired CCS AI+Security workshops.

Stanford University Computer Science Department Stanford, California USA
Centrum Wiskunde en Informatica (CWI) & Universiteit Leiden Amsterdam & Leiden, Netherlands
NSF Postdoctoral Scholar 2008–2012

- Designed cryptosystems for applications including cloud computing, network routing, post-quantum crypto.
- Developed and taught Masters course on Elliptic Curve Cryptography; published 12 research papers.

EDUCATION

University of California, Berkeley Berkeley, California USA
Ph.D. in Mathematics, 2008. Thesis: “Constructing Abelian Varieties for Pairing-Based Cryptography”

University of Cambridge Cambridge, United Kingdom
Master of Advanced Study in Mathematics, with Distinction, 2003.

Harvard University Cambridge, Massachusetts USA
A.B. Summa Cum Laude in Chemistry and Physics and Mathematics, 2002.

OTHER CREDENTIALS

- **Book:** *Machine Learning and Security: Protecting Systems with Data and Algorithms* (O’Reilly, 2018).
- **Papers:** 27 research publications in security and cryptography; more than 5000 citations to date.
- **Awards:** PKC 2025 “Test-of-Time Award” for 2009 paper; Friedman Applied Math prize for Ph.D. thesis.
- **Skills:** Detection-system evaluation, risk scoring, anomaly detection, graph analysis, time-series analysis, clustering, adversarial ML, feature engineering, A/B testing.
- **Tools:** Python (+jupyter, sklearn), SQL, Spark, Presto, Hive, R, Bash, Git.