

# ELKANA TOVEY

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## SUMMARY

PhD. Candidate specializing in applied cryptography and secure scalable systems. Research focuses on secure computation, differential privacy, and private ML to build provably scalable, privacy-preserving protocols. Experience implementing systems in C++, Go, and Python.

## EDUCATION

**PhD. Computer Science** Fall 2023 – Present

Hebrew University of Jerusalem

Thesis work focusing on provably scalable secure and private systems using statistical and cryptographic tools such as efficient ZKPs FHE and oblivious computation.

**MSc Computer Science** Fall 2021- Spring 2023

Hebrew University of Jerusalem

95.6 GPA

Thesis work focusing on metadata private communication systems using secure distributed computation leveraging cryptographic primitives such as Homomorphic Encryption and PIR

**BSc Computer Science and Mathematics** Fall 2017- Spring 2021

Hebrew University of Jerusalem

85.1 GPA

## PUBLICATIONS

***AuditPay: Anonymous Payments with Restricted Monitoring, ACM CCS 2026 (to appear)***

Elkana Tovey, Yossi Gilad, Aviv Zohar

***Distributed PIR: Scaling Private Messaging via the Users' Machines, ACM CCS 2024***

Elkana Tovey, Jonathan Weiss, Yossi Gilad

## EXPERIENCE

**Hebrew University of Jerusalem, Jerusalem, IL: TA** October 2019 – Present

- Prepare teaching material, manage lab hours, teach recitation, marking homework, Write and grade exams. Current TA in OS, Intro2Cryptography. Previously TA in Intro2Networks, Intro2ML, Intro2DataPrivacy

**Microsoft Research, Cambridge, UK: Research Scientist Intern** Upcoming - Summer 2026

- Incoming Research Intern on the CCF team

**IBM Research, IL: Research Scientist Intern** June 2023 – October 2023

- Engineered a Go-based reverse-proxy library to enable secure TCP/mTLS communication through firewalls, allowing for encrypted inter-cloud connectivity without application-level changes

## SKILLS

**Research:** Distributed Systems, Cybersecurity, Applied Cryptography, DP, PPML, Blockchain

**Programming:** Python, C, C++, Java, Golang

**Languages:** English and Hebrew, native speaker

## AWARDS

**CHE Scholarship for Outstanding Doctoral Students** October 2025 – September 2026

National fellowship awarded by the Israeli Council for Higher Education.

**Ullman Scholarship for Young Researchers** October 2021 – September 2023

Scholarship for work on secure communication systems.

## Hackathon Placements

2nd Place HUJI Hackathon (2021); 3rd Place Facebook Israel Hack (2020).