## **Yaniv Hozez**

# AI & Cybersecurity Researcher



#### + Personal Information

Q 30/07/1998

, ☐ Israeli

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. 054-3322783

https://www.linkedin.com/in/yanivhozez

#### + Profile

As an Interdisciplinary AI & Cybersecurity Researcher with a foundation in theoretical AI, cognitive science, psychology and psychoanalysis, philosophy, and advanced mathematics, I specialize in solving complex scientific problems across domains. I thrive in research environments that demand abstract reasoning, crossdomain integration, and innovative scientific thinking. My published work bridges deep learning theory, human cognition, formal systems, pure logic, and the philosophy of science - uncovering patterns that transcend traditional academic boundaries, and has been cited in scientific journals.

Conduct original research in cryptanalysis and reverse engineering of encryption mechanisms, with a focus on RSA and public-key infrastructures. Explore mathematical vulnerabilities, developing innovative approaches to factorization and key recovery, and analyze the practical implications of theoretical weaknesses. Emphasize both the scientific foundations and real-world security considerations, bridging deep mathematical insights with applied system security.

Neither would I have been able to find a greater understanding of the world than in its mathematical structure and orientation toward pure logic, nor will I, for more than twenty years, ever have been considering the possibility of my enduring passion for research being obstructed: not only by the end of my existence but also by any obstacle whatsoever.

https://www.researchgate.net/profile/Yaniv-Hozez

https://orcid.org/0000-0002-6107-2898

Web of Science ResearcherID: A-2967-2019

#### + Work Experience

門 09/2025 - PRESENT

## Artificial Intelligence & Cybersecurity Researcher MyVoice Al

I apply cutting-edge AI and Cybersecurity research through the lens of pure logic-oriented technological approaches and scientific rigor. Drawing from a broad foundation across the globe of its exact sciences, I design and experiment with novel neural architectures inspired by recursive systems, biological cognition, and high-dimensional mathematics whose integral properties are derived by the most successful an implementation of pure (and applied) logic. I contribute to technologies that enable verbal communication for children on the lower functioning autism spectrum. I explore security as a logical framework - treating vulnerabilities as solvable equations - while pioneering experimental AI systems that push the boundaries of what neural networks can be.

**⊟** 01/2025 - 03/2025

## Software Developer Internship Check Point Software

Developed and maintained full-stack web applications, integrating frontend frameworks (e.g., React) with backend technologies (e.g., Node.js, Express). Implemented database operations and optimized queries using MongoDB to enhance performance and scalability.

**⊟** 07/2024 - 01/2025

#### Data Science Intern Check Point Software

Conducted theoretical research on neural network architectures, exploring fundamental principles underlying deep learning and optimization. Investigated the mathematical foundations of AI, including generalization, interpretability, and robustness in neural models. Developed novel approaches to improving algorithmic efficiency, representation learning, and adversarial resilience. Studied AI alignment and security, analyzing vulnerabilities in machine learning systems and developing frameworks for robustness and fairness. Engaged in interdisciplinary research to advance theoretical insights into AI scalability, reasoning, and emergent intelligence. Contributed to applied security research involving prompt injection attacks and transformer model hardening.

#### + Work Experience

**⊞** 02/2024 − 07/2024

#### Research Assistant Ono Academic College

Served as a research assistant starting in my first year of studies. Led integration projects combining Large Language Models (LLMs) with cognitive psychology to build predictive models of human behavior. Explored human-Al interaction patterns in real-world scenarios, contributing to secure, behavior-aware Al applications. Research supported insights into the design of copilots and adaptive automation systems.

#### **⊟** 01/2021 − 08/2022

## Artificial Intelligence Researcher Zirra Co Ltd.

Conducted research on the theoretical underpinnings of deep learning models, exploring unconventional architectures for temporal data prediction. Investigated the dynamics of recurrent neural networks (RNNs) to analyze emergent learning behaviors and stability properties. Examined the theoretical limits of predictive modeling in complex, stochastic environments, contributing to a deeper understanding of Al's capacity for pattern discovery beyond conventional statistical frameworks.

#### Ħ 11/2018 - 12/2019 ♥ ISRAEL

## Artificial Intelligence Researcher Israeli Ministry of Defense (Military Service)

Served at RAPAT - The Tank and Armored Vehicle Development Authority in the Israeli Ministry of Defense. Conducted pivotal research on neural network architectures to enhance the AI capabilities of the Merkava 'Barak' (Lightning) tank. Managed highly sensitive defense projects, with access to confidential material under classified clearance protocols. Worked alongside and provided consultation to defense engineers and military personnel in an interdisciplinary setting.

#### + Languages

English

Native

Hebrew

**Native** 

#### + Skills

#### (i) PROGRAMMING LANGUAGES

Python

#### (i) FRAMEWORKS/TOOLS

Prompt Engineering (LLMs)

TensorFlow

PyTorch

Keras

**Hugging Face** 

Open-Al

Scikit-learn

NumPy

**Pandas** 

#### + Publications

Conversation with Yaniv Hozez on Views and Life: Member, OlympIQ Society (Interview) In-Sight Publishing (ISSN: 2369-6885)

https://in-sightpublishing.com/2024/11/22/hozez/

Review of: Beyond the Observable: How the Daodejing Informs Quantum Science and Modern Cosmology
Oeios (ISSN: 2632-3834)

https://doi.org/10.32388/BK56CS

## Inverse Psychological Projection Oeios (ISSN: 2632-3834)

https://doi.org/10.32388/34SOR7.5

Theory of Egotistical Capability in Psychotherapy: Impact of Therapists' Narcissistic Traits, Tendencies, and Egotism Manifestations Toward Patients Oeios (ISSN: 2632-3834)

https://doi.org/10.32388/6YUGEC.7

## The "Panacease" to Our Existence Telicom 31. no 1. (ISSN: 1087-6456)

https://www.researchgate.net/publication/330497991\_The\_Panacease\_to\_our\_Existence

## The Complex Place - The "Imaginareal" Paradise?

Telicom 30. no 5. (ISSN: 1087-6456)

https://www.researchgate.net/publication/328198904\_Poetic\_cross-

fertilization\_whose\_principal\_function\_is\_not\_only\_for\_bot h\_of\_its\_philosophical\_and\_historical\_approaches\_to\_con sist\_of\_apparent\_simple\_diagnosis\_notwithstanding\_its\_n aive\_complex\_analys

#### + Achievements

- Full Member of The OLYMPIQ Society a high-IQ organization for individuals with exceptionally advanced cognitive abilities (IQ 175+, sd 15).
- Full Member of Sigma Xi The Scientific Research
  Honor Society (affiliated with The Stanford University
  Chapter). Proposed and advanced initiatives to reestablish dormant Sigma Xi Chapters at Lawrence
  Livermore National Laboratory, one of the U.S.
  government's premier research institutions in physics,
  materials, and national security, and at Harvard
  University (with the personal blessing of Professor Alan
  Garber, President of Harvard University).
- Defeated Chess.com's top-tier engine (~3200 Elo) in multiple classical games - exceeding the highest official human Elo rating in history (Magnus Carlsen, 2882), demonstrating abstract long-horizon reasoning.

#### + Test Scores

Title: Wechsler Adult Intelligence Scales - Third Edition (WAIS-III)

Score: IQ 190+, sd 15 expol Estimated rarity: 1 in a billion

#### + Volunteering

円 07/2019 - PRESENT

## Scientific Researcher Office of the Prime Minister of Israel

Took the initiative to establish the Israeli chapter of Sigma Xi, The Scientific Research Honor Society (currently under official review). Provided guidance to senior government officials on high-level policy development, contributing strategic frameworks grounded in rigorous, logic-oriented analysis. Built and sustained enduring, trusted relationships with ministers and their senior advisors across the ministries of science, justice, and finance - bridging advanced scientific research with national policy and governance.

苗 03/2017 - 10/2018

#### Private Teacher Uri Orbach Elementary School in Petach Tikva, Israel

Taught two extremely gifted children who had granted me with the honor to learn from them, calculus, advanced mathematics, science, pure logic, and memorization techniques.

#### + Certificates

**□** 07/2017

#### **Fellowship**

#### International Society for Philosophical Enquiry

The International Society for Philosophical Enquiry (ISPE) is a high-IQ society open to people who score at or above the 99.9th percentile on a standardized psychometric test of intelligence. The society was originally founded as "The Thousand" in 1974 by Christopher Harding of Australia, and is the third-oldest high-IQ society in the world.

**⊟** 07/2017

## Full Membership sPIqr High IQ Society

The sPIqr High IQ Society was founded in Italy, with the purpose of supporting the development of gifted children that are often neglected by the system. It is open to people who score at or above the 99.98th percentile on a standardized psychometric test of intelligence.

門 06/2018

## Profound Membership ELITE High IQ Society

The Exclusive Leading Institute for Thinkers' Evolution (ELITE) High IQ Society is a high-IQ society open to people who score at or above the 99.999th percentile on a standardized psychometric test of intelligence. Founded in 2014, it is a part of The GENIUS High IQ Network.

**⊞** 01/2020

#### Full Membership National Postdoctoral Association

The NPA (National Postdoctoral Association) is an educational organization in the United States that is dedicated to enhancing the quality of the postdoctoral experience for all participants. Since its founding in 2003, more than 200 institutions have adopted portions of the NPA's Recommended Postdoctoral Policies and Practices.

#### + Certificates

🖰 04/2021

Peer Reviewer Springer Nature Group

#### Artificial Intelligence #6: LSTM Neural Networks with Keras Udemv

http://ude.my/UC-ece7b8c7-2924-4031-8e96-07708a22cf26

**⊟** 07/2021

#### Full Membership Society of Professional Journalists

The Society of Professional Journalists (SPJ) is a nonprofit organization dedicated to promoting and defending the First Amendment, encouraging high ethical standards in journalism, and providing professional development and resources for journalists and students. It is the oldest organization representing journalists in the United States.

🖰 05/2022

# Peer Reviewer Wiley (on behalf of The British Association for Counselling and Psychotherapy)

**Ö** 07/2022

#### Full Membership United Sigma Intelligence Association

Certificate ID: 8gjssbn4s935ibk1156ypyv87

The United Sigma Intelligence Association (USIA) - is an international think tank dedicated to the advancement of intelligence research, interdisciplinary dialogue, and the application of cognitive excellence to human progress.

**⊟** 08/2022

### Introduction to Quantum Cryptography LinkedIn

https://www.linkedin.com/learning/certificates/1ca8e930 8124ad23443116f88461e8fd8c880454a1a13c055153751 f7f19ca44?trk=flagship-lil\_details\_mobile\_certification

**⊟** 08/2022

NSSEP: Basic Nuclear and Atomic Physics (National Qualification)
Texas A&M University - Center for Nuclear
Security Science and Policy Initiatives (NSSPI)
Earned 3 academic credits.

**1**2/2022

## Peer Reviewer Taylor & Francis Group

#### International Membership American Psychological Association

Certificate ID: C2002026151

The APA (American Psychological Association) is the leading professional organization for psychologists worldwide, dedicated to advancing scientific research, promoting ethical standards, and fostering the application of psychology in clinical, educational, and social contexts. It fosters innovation in research and practice globally.