Vadim K. Weinstein
Mathematics Virtuoso

📅 08 January 1986

📍 Oulu, Finland

📞 +358503444045

🌐 https://www.manifoldsolutions.io

@ vadim.weinstein@oulu.fi

in vadim-k-weinstein

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Mathematician ───────

Using mathematics for robotics, data engineering solutions, game engines, AI, and cognitive science. Regularly solving open mathematical problems both in academic and industrial context. Years of experience made me a **a fast learner**, **sharp problem solver** and an expert **precise thinker**.
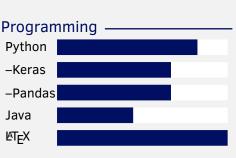
Communicator ───────

I have lectured numerous courses from mathematics of machine learning to abstract algebra. This has trained me in public speaking and taught me how to **communicate complex topics to diverse audiences**. I host a podcast on math careers, and I am regularly **invited to speak** to both on scientific and industrial events.

Leader ───────

I have managed multiple projects from thesis supervision to academic papers of a team of authors, overseen course design, and lead consulting projects. I am a visionary who keeps the **team spirit** up. I have learned to **break down complex projects into managaeble tasks and distribute them to the right people**.

Languages ───────

English ▰▰▰▰▰▰▰▱

Finnish ▰▰▰▰▰▰▰▰

Russian ▰▰▰▰▰▰▰▰

German ▰▰▰▱▱▱▱▱

Programming ───────

Python ▰▰▰▰▰▰▱▱

–Keras ▰▰▰▰▰▱▱▱

–Pandas ▰▰▰▰▰▱▱▱

Java ▰▰▰▰▱▱▱▱

LaTeX ▰▰▰▰▰▰▰▰

The essence of mathematics is its freedom.
– Georg Cantor (1845-1918)

About me

An interdisciplinary scientist with a PhD in mathematical logic, MSc in cognitive science, and a publication record in math, computer science, cognitive science, and robotics. An entrepreneur specializing in head hunting math PhD's. Bringing together disconnected ideas under a formal foundation. Building bridges between scientific and business communities.

Academic positions

2020-	Associate Professor (non-tenured) Mathematical foundations of robotics and AI	University of Oulu
2019-	Adjunct Professor Mathematics	University of Helsinki
2012-2019	Principal investigator, lecturer Mathematics, logic, computer science, AI	University of Helsinki University of Vienna Aalto University

Degrees and titles

2018	Title of Docent (U. Helsinki)	2011	PhD math. logic (U. Helsinki)
2016	MSc cognitive science (U. Vienna)	2009	MSc mathematics (U. Helsinki)

Publications

I have 24 peer-reviewed publications in mathematics (15), cognitive science (3) and robotics (6). I am regularly invited to write popular articles on mathematics, math and art, math and AI. For more details see my ORCID-profile.
⇒ **Fast and precise writer of technical reports. Proficient at structuring text and communicating complex ideas in a short and concise way.**
⇒ **Creative problem solver.**

Teaching and outreach

Lectured total of 14 courses on pure math, computer science, and AI, many of which I authored 100 % myself. I have supervised many BSc, MSc, and PhD students. I am regularly invited as a lecturer and/or panel member. I have been interviewed on Finnish radio and newspapers.
⇒ **Great public speaking skills. Excellent at explaining complex topics to a wide and diverse audience. Know how to put complex ideas in an accessible graphic and verbal format.**

Entrepreneurship

2021 -	Founder & CEO of head hunting company Manifold Solutions
2017 - 2020	Freelance data science consulting & mathematical modelling in financial & gaming industries

ML & AI Experience

I have lectured four self-authored courses on mathematics of machine learning covering topics from ICA, Boltzmann machines, and Hopfield networks to math of back-propagation, and theory of supervised & reinforcement learning.

In consulting jobs I have used `Python` to write DL algorithms using mainly `Tensorflow` for everything from image recognition and generation, to reinforcement learning.

Organizational

2023	Conference organizer	PaMoSA23
	Organizing the conference Philosophy and Mathematics of Situated Agency which brought together world top roboticists, philosophers, and cognitive scientists to cross-pollinate.	