

IGOR KLEINER, Ph.D.

Senior Lecturer | Data Scientist | Researcher | Digital-Education Innovator

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ACADEMIC PROFILE

Senior Lecturer and data scientist specializing in statistics, machine learning, applied probability, stochastic processes, queueing theory, time-series analysis, probabilistic algorithms, and image processing. Experienced in university teaching, applied research, digital-course development, and the responsible integration of generative AI into higher education. Creator and lead instructor of Russian-language online courses and a public lecturer reaching a broad international audience through a main YouTube channel with more than 250,000 subscribers.

EDUCATION

Period	Institution	Field	Degree / Qualification
2015-2022	University of Haifa, Israel	Statistics	Ph.D., 2022
2003-2007	University of Haifa, Israel	Computer Science	M.Sc., summa cum laude, 2007
2000-2003	University of Haifa, Israel	Computer Science	B.Sc., summa cum laude, 2003
1996-1999	Moscow Radio Institute, USSR	Informatics	Studies completed, 1999

M.Sc. thesis: Applying Property Testing to an Image Partitioning Problem. Supervisors: Prof. Daniel Keren and Prof. Ilan Newman.
Ph.D. dissertation: On Queues with Vacations, Disasters, and Service Systems with Matching. Supervisors: Prof. David Perry, Prof. Esti Frostig, and Prof. Gideon Weiss.

ACADEMIC APPOINTMENTS

Period	Institution	Department / Area	Rank / Function
2022-present	HIT - Holon Institute of Technology, Holon, Israel	Department of Data Science	Senior Lecturer
2018-2024	The Open University of Israel, Ra'anana, Israel	Statistics / Data Analysis	Lecturer
2015-2025	University of Haifa, Haifa, Israel	Statistics	Lecturer
2016-2018	Western Galilee College, Akko, Israel	Industrial Management - Logistics	Teaching Assistant
2011-2012	Ort Braude College, Karmiel, Israel	Industrial Management / Computer Science	Visiting Instructor
2003-2007	University of Haifa, Haifa, Israel	Computer Science	Teaching Assistant

PROFESSIONAL AND RESEARCH EXPERIENCE

Period	Institution	Role	Selected Responsibilities
2020-2023	Data Analysis Center, University of Haifa, Israel	Senior Data Scientist	Applied statistics, machine learning, time series, NLP, research design, modeling, interpretation, and interdisciplinary collaboration.

Period	Institution	Role	Selected Responsibilities
2013-2014	Huawei, Russia	Senior Engineer - Key Technologies	Research and development in advanced technological systems.
2012-2013	Skype, Russia	Engineer - Video Quality	Video-quality analysis and engineering.
2010-2012	Intel, Israel	Algorithms Developer Intern	OpenCL, LLVM, and algorithm development.
2007-2009	Microsoft GAPA	Software Development Engineer	Software engineering and development.

DIGITAL EDUCATION, MOOC DEVELOPMENT, AND AI-ENHANCED TEACHING

Russian-Language Online Courses

2020 - Creator and lead instructor, Data Analysis.
2022 - Creator and lead instructor, Critical Thinking.
2026 - Creator and lead instructor, Data Analysis in the Age of AI.
Designed curricula, lectures, practical assignments, interactive activities, assessment materials, and supporting digital resources.

AI-Enhanced Teaching and Learning

Advocate and practitioner of the responsible use of generative AI in higher education.
Develops AI-assisted learning environments for data analysis, coding, visualization, interactive assessment, personalized feedback, and critical evaluation of AI-generated content.
Developed course-support platforms combining recorded lectures, presentations, assignments, and AI-assisted materials for Python Programming, Stochastic Processes, Text Mining, Time Series, Probability, and related Data Science courses.
Developed and first taught a new Image Processing course in Fall 2024.

PUBLIC ENGAGEMENT AND SCIENCE COMMUNICATION

YouTube lecturer and educational content creator; creator and host of a main Russian-language YouTube channel with 250,000+ subscribers (August 2026).
Produces public lectures and educational content for a broad international audience, translating complex academic, statistical, and analytical ideas into accessible explanations.
Author of public-facing educational projects in probability, statistics, data analysis, critical thinking, and artificial intelligence in education.

ACADEMIC AND PROFESSIONAL AWARDS

Year	Institution	Award
2025	HIT - Holon Institute of Technology	Excellence in Teaching Award
2024	HIT - Holon Institute of Technology	Excellence in Teaching Award
2023	The Open University of Israel	Award for Innovations in Teaching
2004	University of Haifa, Computer Science Department	Best M.Sc. Student
2003	University of Haifa, Computer Science Department	Best M.Sc. Student

RESEARCH SPECIALTIES

Machine learning and statistical learning
Data analysis, time-series analysis, and big data
Applied probability, stochastic processes, queueing theory, and operations research
Probabilistic algorithms, property testing, image processing, and pattern recognition
AI-enhanced teaching, data-science education, and digital learning design

SELECTED COURSES TAUGHT

Institution / Period	Courses
HIT, 2022-present	• Introduction to Scientific Programming - Python • Probability • Probability and Statistics 1 • Probability and Statistics 2 • Statistical Methods • Linear Algebra for Data Science • Statistical Models of Operations Research • Stochastic Processes • Time Series • Text Mining • Image Processing
University of Haifa, 2015-2025	• Data Science for Everyone • Statistical Learning • Stochastic Processes for M.A. • Introduction to Scientific Programming - Python • Operations Research • Statistical Inference • Machine Learning • Probabilistic Methods • Time Series • Text Mining • Image Processing • Probability and Statistics • Linear Algebra for Data Science
The Open University of Israel, 2018-2024	• Statistics • Probability • Data Analysis • Related quantitative and computer-science courses
University of Haifa, 2003-2007	• Numerical Analysis • Set Theory • Logic for Computer Science • Probabilistic Methods in Computer Science • Algorithms • Complexity • Theory of Computation • Dynamic Programming • Operations Research
Ort Braude College, 2011-2012	• Discrete Mathematics 2 • Numerical Analysis • Introduction to Stochastic Processes • Probability
Infowatch, 2012	• Dynamic Programming • Critical Thinking • High-Tech Interviews

PUBLICATIONS

Book

1. H. Tijms and I. Kleiner. Сюрпризы в теории вероятностей - восемнадцать неожиданных историй (Surprises in Probability - Eighteen Unexpected Stories). Moscow: MCCME (МЦНМО), June 2025. 152 pages. ISBN 978-5-4439-1929-4.
<https://biblio.mccme.ru/node/292724>

Refereed Journal Articles

1. I. Kleiner, E. Frostig, and D. Perry. A decomposition property for an $M^X/G/1$ queue with vacations. Indagationes Mathematicae, 34(5), 973-989, 2023. <https://doi.org/10.1016/j.indag.2023.05.002>

2. I. Kleiner, E. Frostig, and D. Perry. Busy periods for queues alternating between two modes. *Methodology and Computing in Applied Probability*, 25(2), Article 60, 2023. <https://doi.org/10.1007/s11009-023-10037-y>
3. I. Adan, I. Kleiner, R. Richter, and G. Weiss. FCFS parallel service systems and matching models. *Performance Evaluation*, 127-128, 253-272, 2018. <https://doi.org/10.1016/j.peva.2018.10.005>
4. S. K. Bar-Lev, O. J. Boxma, I. Kleiner, D. Perry, and W. Stadjé. Recycled incomplete identification procedures for blood screening. *European Journal of Operational Research*, 259(1), 330-343, 2017. <https://doi.org/10.1016/j.ejor.2016.10.005>
5. S. K. Bar-Lev, B. Boukai, and I. Kleiner. A numerical study of small parameter behavior of some families of distributions. *Communications in Statistics - Simulation and Computation*, 45(10), 3534-3547, 2016. <https://doi.org/10.1080/03610918.2015.1136414>
6. I. Kleiner, D. Keren, I. Newman, and O. Ben-Zwi. Applying property testing to an image partitioning problem. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 33(2), 256-265, 2011. <https://doi.org/10.1109/TPAMI.2010.165>

Conference Proceedings and Abstracts

1. I. Kleiner. Applying property testing 2-side error algorithm for testing monochrome halfplane property of image. *International Conference on Radio-Electronic Devices and Systems for the Info-Communication Technologies*, 4, 82-86, 2014.
2. I. Kleiner. Applying property testing to test binary images on being halfplane. *16th International Conference on Digital Signal Processing and Its Applications (DSPA-2014)*, Vol. 2, 701-711, Moscow, Russia, 26-28 March 2014.
3. I. Kleiner, D. Keren, and E. Barkai. Pattern recognition in the brain and in computational sciences. *Abstracts of the 15th Annual Meeting of the Israel Society for Neuroscience*, Eilat, Israel, 3-5 December 2006.

LANGUAGES AND TECHNICAL EXPERTISE

Languages: Russian (native), Hebrew (professional), English (professional), German (CEFR A2), Esperanto (CEFR A2), Spanish (CEFR A1).

Methods: statistical modeling, machine learning, stochastic modeling, queueing, time series, NLP, image and video analysis.

Teaching technologies: Python, Colab, Orange, Streamlit, interactive web applications, AI-assisted course design, and digital assessment.