

Curriculum Vitae: Shimon Komarovsky

Address: Haifa, Israel

Birth year: 1982

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Personal site: shimon-k.github.io

Status: Married

Email: cm5099@yahoo.com

Education:

- **2019-2023**: Finished PhD (thesis submitted) in transportation sciences, in civil and environmental engineering faculty at the Technion, Haifa.
Thesis: **Artificial Intelligence in traffic signal control for large-scale urban networks**.
Included implementation of graph neural networks (GNNs), both in supervised learning and in reinforcement learning approaches. Also fine-tuning GPT language model with GNNs on synthetic dataset
- **2017-2019**: Master's degree in transportation sciences, at Technion. Final grade: 91.1 and 88 in the thesis.
Thesis: **Robust Interpolating Traffic Signal Control for Uncertain Road Networks**.
Included implementing and comparing various network traffic control methods, i.e. MPC, IC, LQR.
- **2012-2016**: Bachelor's and Master's degrees in Physics Education at the Technion, both with honors. Final grades: 93.5, 94.7.
- **2005-2009**: B.Sc. Bachelor of Science in Physics, Technion (Final Grade 84.8).

Computer skills:

- C++, MATLAB, C#, Python, R and more - good knowledge, with fast perception and programmatic logic
- OFFICE and WINDOWS applications - Excellent proficiency

Work Experience:

- **2019**: Tutor (or Teaching Assistant) and instructor in a lab of the "Transportation Engineering and Management" Course, in the Civil Engineering faculty at the Technion, Haifa.
- **2017**: Research assistant in the TSMART, a smart transportation laboratory, concentrating on optimal control and implementation in AIMSUN simulation and in the field. Programming in C++, MATLAB.
- **2016**: Instructor in physics lab for undergraduate students at the Technion.
- **2013-2016**: Research and development of algorithms in water supply networks (mainly optimization), at the Technion Water Research Institute (and programming in C# and MATLAB, with simulations in EPANET); Programming in air pollution research and satellite sensing data processing; Supervisor and teacher in high school physics research projects at Alliance School in Haifa.
- **2012**: In the role of an engineer, at the [Transportation Research Institute](#) (TRI) in Technion, studying and integrating quantitative models of transportation. The job included basic knowledge in database software, MATLAB, programming languages and more. Work performed individually and in team.
- **Until 2012**: Physics Lecturer in a College of Management, and a reinforcement teacher of high-school students in Physics and Mathematics.

Languages:

Hebrew, Russian - Native level. English - a good mastery level.

More information:

A more detailed resume can be found in <https://shimon-k.github.io/cv.html>,
and publication list in <https://shimon-k.github.io/publications.html>.

Personal Links:

- **Homepage URL:** <https://shimon-k.github.io/>
- **Google Scholar URL:** <https://scholar.google.com/citations?user=whKPveEAAAAJ>
- **DBLP URL:** <https://dblp.org/pid/247/4427.html>
- **ORCID URL:** <https://orcid.org/0000-0002-9036-0282>
- **Linkedin URL:** <https://www.linkedin.com/in/shimon-komarovsky-71669925/>
- **Semantic Scholar URL:** <https://www.semanticscholar.org/author/Shimon-Komarovsky/1395873801>
- **OpenReview URL:** https://openreview.net/profile?id=~Shimon_Komarovsky1