

Michael Bilevich

Tel Aviv, Israel | michaelmoshe@mail.tau.ac.il

Education

Ph.D. | 2023-2028 | TEL AVIV UNIVERSITY (IN PROGRESS)

- Computer Science (Algorithmic Robotics & Computational Geometry)
- Under the supervision of Prof. Dan Halperin
- Rector's Award for Teaching Excellence, Top 100, 2024

M.Sc. | 2021-2022 | TEL AVIV UNIVERSITY

- Computer Science
- Under the supervision of Prof. Dan Halperin
- Recipient of the Celia and Marcus Maus Prize, 2023
- **Grade Average: 97**

B.Sc. | 2015-2018 | TEL AVIV UNIVERSITY

- Major: Computer Science
- Minor: Mathematics
- Dean's list in 2017 and 2018
- **Summa cum laude**

Skills & Abilities

LANGUAGES

- Hebrew, mother tongue
- English, fluent
- Russian, proficient

PROGRAMMING

- Programming Languages: C, C++, C#, Python, Java, Assembly, MATLAB
- Knowledge of OpenGL, DirectX, SDL, Unreal Engine, Unity
- Machine Learning & Computer Vision - Tensorflow, Keras, Torch, OpenCV, Pillow
- Web - Django, Flask, Angular, PHP
- Databases & SQL - Oracle, Hadoop, SOLR

Experience

DEVELOPER | COMPUTATIONAL GEOMETRY LAB, TEL AVIV UNIVERSITY | 2021 - 2025

- Work with C++ and Python
- Development of frameworks and small-scale projects
- Experience with computational geometry algorithms and the CGAL library

ISRAELI MINISTRY OF DEFENCE | 2018 - 2021

- Data scientist and engineer in a technological department
- Extensive experience with Python and Pandas

Publications

- “*Sensor Localization by Few Distance Measurements via the Intersection of Implicit Manifolds*”, M.M. Bilevich, S.M. LaValle, D. Halperin, 2023 IEEE International Conference on Robotics and Automation (ICRA), 2023
- “*Localization in Dynamic Planar Environments Using Few Distance Measurements*”, M.M. Bilevich, S. Guini, D. Halperin, arXiv preprint, 2024
- “*Tight Motion Planning by Riemannian Optimization for Sliding and Rolling with Finite Number of Contact Points*”, D. Livnat, M.M. Bilevich, D. Halperin, 2024 IEEE International Conference on Robotics and Automation (ICRA), 2024
- “*A Note on the Complexity of Subdivision Methods for the Approximation of Fibers*”, M.M. Bilevich, D. Halperin, arXiv preprint, 2025

Talks

- “*Sensor Localization by Few Distance Measurements via the Intersection of Implicit Manifolds*”, IROS 2023 Workshop on Closing the Loop on Localization: What Are We Localizing For, and How Does That Shape Everything We Should Do?, IEEE International Conference on Intelligent Robots and Systems (IROS), 2023, (Similar content to the ICRA 2023 paper). **Runner up for best presentation**
- “*Sensor Localization by Few Distance Measurements via the Intersection of Implicit Manifolds*”, Robotics Seminar, University of Illinois Urbana-Champaign (UIUC), 2024
- “*Localization in Dynamic Planar Environments Using Few Distance Measurements*”, 40th Anniversary of the IEEE International Conference on Robotics and Automation (ICRA@40), 2024