



Tekla Tóth

Researcher in Computer Vision

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tothtekla.github.io



Education

2018 - 2024



Ph.D. in Computer Science

Eötvös Loránd University (ELTE),
Budapest, Hungary

Ph.D. Thesis: Target-Based LiDAR-Camera Calibration for Robotics and Autonomous Systems – Qualification: summa cum laude

2017 - 2018

Fall Semester



ERASMUS program

Universität Wien, Vienna, Austria

Main courses:

- *Image processing, analysis, synthesis*
- *Real-time computer graphics*
- *Advanced algorithms*

2016 - 2018



M.Sc. in Computer Science

Specialization: Software Technology

Eötvös Loránd University, Budapest, Hungary

M.Sc. Thesis: Geometric shape reconstruction in LiDAR point clouds – Special award on National Scientific Students' Associations Conference

2012 - 2016



B.Sc. in Engineering Information Technology

University of Pannonia, Veszprém, Hungary

B.Sc. Thesis: Designing Matlab software for analyzing body surface potential mapping

Professional interest



Most experienced with **sensor calibration** and **multimodal data analysis** for robotics, geoinformatics, and AI



Solid knowledge of **3D computer vision and graphics**, **image processing**, and **machine learning**



Programming technologies: C, C++, Python, OpenCV, Eigen, Matlab, Git, OpenGL, PyTorch



Selected publications: [IJCV2023](#), [CVWW2023](#), [ICRA2020](#), [VISAPP2019](#), [CVPR2017](#)

Awards and Grants

- 2026 – HUN-REN AI Agentic Hackathon - 1st Prize
- 2025 – KÉPAF PhD Prize
- 2023 – Attila Kuba Prize
- 2021/22, 2022/23 – New National Excellence Programme

Languages



Native



Professional



Intermediate
(passive)

Experience

2025-

2023 - 2024

2021 - 2023



Assistant Professor

Research Fellow

Junior Assistant Professor

Eötvös Loránd University (ELTE)
Budapest, Hungary

Teaching:

- 3D computer vision & graphic courses
- General-purpose computing on GPUs
- Geoinformatics and remote sensing laboratory

2023 - 2024



External Consultant

via academic relations of ELTE
Robert Bosch GmbH
Bosch Budapest Innovation Campus

Fall, 2020



Research Engineer Intern

Facebook Reality Labs (Meta)
Oculus virtual reality products
Zürich, Switzerland

- Sensor calibration for VR headset in C++

2016 - 2018



Software Developer

Machine Perception Research Laboratory
Hungarian Academy of Science
Budapest, Hungary

- Video stabilization
- Object detection in LiDAR data

Summer, 2015 **Software Developer Intern**



Innomed Medical Zrt.
Budapest, Hungary

- ECG signal classifier code refactoring in C

2013 - 2015



Junior Research Scientist

Bioelectric Cardiac Imaging Laboratory
University of Pannonia
Veszprém, Hungary

- ECG signal processing
- Body surface potential mapping

Personal skills



Perseverance



Ingenuity



Communication