

# Dan Edelstein

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## Professional Summary

Versatile AI researcher and engineer with a strong foundation in machine learning theory and implementation across multiple domains. Background in computer vision and autonomous systems provides transferable expertise applicable to various AI research areas including natural language processing, reinforcement learning, and multimodal systems. Published researcher with cross-disciplinary technical skills and international experience across Northern Europe. Experienced in developing production-level software systems and integrating novel technologies.

## Education

### DTU (Technical University of Denmark)

Copenhagen, Denmark

*MSc in Human-Centered Artificial Intelligence, Honors; Current GPA: 10/12 Autumn 2024 - Spring 2026*

- **Relevant Coursework:** Bayesian Machine Learning, Deep Learning
- **Projects:** Robust memorization-free diffusion models Demo

### TalTech (Tallinna Tehnikaülikool)

Tallinn, Estonia

*BSc in Integrated Engineering, Cum Laude, GPA: 4.9/5*

*Autumn 2021 - Summer 2024*

- **Thesis:** "Investigation into suitability of millimeter-wave radars for perception on a mobile robotics platform" - Grade: 5.0/5.0
- **Awards:** Cum Laude, XRP Ledger Trust Stipendium Grantee

### Aalto University

Helsinki, Finland

*Erasmus, GPA: 4.9/5*

*Autumn 2023 - Summer 2024*

- **Key Courses:** Autonomous Mobile Robotics (MSc), Smart Forestry Robotics (MSc)
- **Projects:** Touch-keyboard sidechannel attack: modelling touch input via inertial multivariate time series

## Work Experience

### Logoteknia Oy

*NLP MLOps Engineer – Contract, Fully Remote*

Helsinki, FI

*May 2025 - Ongoing*

- Architected production MLOps evaluation platform on Azure to drive statistically robust, cost-aware selection of machine translation models for a commercial API.
- Engineered async microservices architecture (FastAPI, Celery) and integrated dynamic model resolution via Azure ML Registry, enabling zero-downtime model promotions.
- Instituted multi-batch evaluation methods leveraging Bayesian inference to quantitatively rank models, enabling optimal cost-per-quality-point based routing
- Engineered a corpus construction pipeline from heterogeneous sources, instituting rigorous validation protocols to mitigate training set contamination.
- Tech Stack: Python (FastAPI, Celery, PyMC, Pydantic), Azure (Container Apps, ML Workspace), PostgreSQL, Redis, Docker, MLflow, Git, asyncio/httpx.

### TalTech Autonomous Vehicles Research Group

Tallinn, Estonia

*Autonomous Mobility Perception Researcher*

*Feb 2024 - Aug 2024*

- Developed a sensor fusion pipeline that integrated emerging sensor modalities with traditional perception systems for autonomous navigation.
- Tech Stack: C++, Python, Robot Operating System (ROS), Docker

### Ericsson

Tallinn, Estonia

*Test Development Digital Software Engineer*

*June 2022 - March 2023*

- Built full-stack internal tool adopted by 100+ engineers for daily use
- Automated testing and CI/CD processes, cutting test execution time by 12%.
- Tech Stack: C#, Next.js, PostgreSQL, MSSQL, Internal Tooling

## Teaching

### Deep Learning

Copenhagen, Denmark

*Sep 2025 - Ongoing*

*MSc Teaching Assistant*

- 4 hours/week of in-person teaching for Deep Learning MSc course

### Quantitative Sustainability 1210X

Copenhagen, Denmark

*Jan 2025 - May 2025*

*MSc Teaching Assistant*

- 8 hours/week of in-person teaching for multi-dimensional sustainability-focused data modeling MSc course

### Facilitating Innovation in Multidisciplinary Teams

Copenhagen, Denmark

*June 2025*

*Engineering Team Project Manager*

- Intensive course on guiding and coordinating engineering teams in the Agile model

## Publications

### Sensor Test Bench for Autonomous Vehicle Engineering Education

Baltic Mechatronics Symposium 2024

*Dan Edelstein, Joona Päivärinne, Pyry Weckman, Oskari Jutila, et al.*

### Millimeter-Wave Radar Applications in Autonomous Object Detection

Baltic Electronics Conference 2024

*Toomas Tahves, Dan Edelstein, Mauro Bellone, Raivo Sell*

## Technical Skills

- **Programming Languages & Frameworks**
  - **AI & Data Science:** Python (PyTorch, PyMC, NumPy, Pandas, JAX, OpenCV)
  - **Backend & MLOps:** FastAPI, Celery, Pydantic, Docker, MLflow, PostgreSQL, Redis, Git, asyncio/httpx
  - **Cloud:** Microsoft Azure (Container Apps, ML Workspace, RBAC)
  - **Additional:** C++, C, ROS (1&2), Javascript/Next.js, MATLAB, Bash
- **Technical Competencies**
  - **MLOps & Production AI:** Cloud-native system architecture, containerization (Docker), experiment tracking (MLflow), and performance optimization for production AI systems.
  - **Statistical Model Evaluation:** Bayesian inference for quantitative analysis, corpus construction, and validation protocols to ensure empirical assessment.
  - **Core AI/ML:** Deep Learning (PyTorch), Natural Language Processing, Computer Vision (OpenCV), and Autonomous Systems (ROS).
- **Human Languages:** English (Fluent), French (Intermediate), Estonian (Improving), Danish (Basic)

## Interdisciplinary Interests and Activities

*Experimental Video Art, Sculptural Mechatronics*

*2015 - Present*

Exhibits: Esther Art Fair - NYC; NSFW - Göteborg SE; Dom Galerija - Riga LV; EKA Galerii - Tallinn EE