Łukasz Sawala

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Personal Statement

Passionate about translating my academic expertise and relentless curiosity into impactful industry solutions. By combining my strong technical skills with the expertise of industry professionals, I aim to deliver innovative, data-driven advancements that shape the future of technology.

Experience

Subteam Navigation Lead, Makercie Space Rover Team   October 2024 – Jun 2025

- Coordinating a team while developing a navigation system for a fully functional, NASA-inspired, and independent Mars rover, preparing the student team for the European Rover Challenge. Website ⧉
- **Systems developed:** Sensor Fusion via SLAM, Object Detection and Avoidance, Teleoperation, Autonomous Driving.

Teaching Assistant, University of Groningen   Feb 2024 – Jun 2025

- **Topics:** Signals and Systems for AI, Algorithms and Data Structures in Python, Robotics
- Responsible for leading, teaching, and evaluating ∼100 Bachelor AI students
- Respected among students, with multiple explicit positive mentions in the course evaluations.

Education

MSc   Artificial Intelligence, University of Amsterdam   Sept 2025 - Current

- **Coursework:** Deep Learning, Data Science, NLP, Programming, Mathematics

BSc   Artificial Intelligence, University of Groningen   Sept 2022 - Jun 2025

- GPA: 9 - *Cum Laude* distinction
- **Nominations:** GUF-100 2025 for best students at the university, TA of the Year 2024
- **Extracurriculars:** Honours College, a diverse 2-year program with deepening and broadening courses for the best students within the university
- **Activities:** Elected Councilman at the Faculty of Science and Engineering, representing a body of over 6000 students at the faculty, drove vital improvement of the TA policies and faculty financial efficiency.

  2-year member of the Committee of External Affairs (ComExA) of Study Association Cover, obtaining and maintaining key sponsorship deals for the association.

Projects

Low-Latency Language-Action Foundation Models via Upside-Down RL   GitHub Repo ⧉

- Pioneered two novel transformer-based architectures for scalable and easy command-conditioned control in high-dimensional continuous environments, achieving superior alignment, generalization, and efficiency over baselines.
- Developed transfer learning and self-imitation pipelines enabling robust adaptation to stochastic, goal-conditioned tasks, demonstrating potential for real-world deployment in low-resource and embedded settings.

- Skills Gained: PyTorch, Offline RL, Transfer Learning, Transformer Architectures, HDF5 Data Pipelines

Data-Driven Forecasting in Urban Environments   GitHub Repo ↗

- An end-to-end programming project aimed to predict NO2 and O3 levels in Utrecht. This project was chosen to contribute to the open-source environmental sustainability project called Open Sustainable Technology.
- Skills Gained: MLflow, StreamLit, fastAPI

Outpacing the Market with Automated Financial News Sentiment Analysis   GitHub Repo ↗

- An end-to-end programming project applying SoTA LLM-based methods aimed to predict market responses to press releases of biotech companies.
- Skills Gained: HuggingFace, HPC, Python

Exploring the role of artificial Theory of Mind in human-agent negotiations   GitHub Repo ↗

- Developed a compact, expandable, and reusable research environment to test various hypotheses of human-agent interaction based on the Colored Trails game.
- Skills Gained: Java, UI, and OOP design

Cover Career Day   2023 & 2024

- Connecting thousands of AI&CS students at the University to potential employers from multiple tech companies via a full day of talks, lectures, and info markets.

Awards

Cognitive Model Blackjack competition winner   2024

- Developed the winning cognitive model for the blackjack challenge using the Adaptive Control of Thought-Rational (ACT-R) framework.
- Tied for the first place as all-time best in the course history, achieving a winrate of 45.7%

RDW Lego Self-Driving challenge winner   2023

- Utilizing sensor fusion in a time-intensive, in-office, self-driving challenge.
- Combating data scarcity with clever heuristics.

Skills

Technical Skills: Python, Java, PyTorch, Transformers, FastAPI, Signal Processing, Statistics, Deep Learning, NLP, Git, Streamlit, Robotics.

Soft Skills: Project Management, Efficient Teamworking, Communication, Conflict Management.

Languages: Polish (Native), English (Proficient).