Adrian Mladenic Grobelnik

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Education

MPhil Advanced Computer Science — Oct 2026 – Present
University of Cambridge, Wolfson College — *Cambridge, UK*

MSc Information and Communication Technologies — Oct 2025 – Present
Jožef Stefan International Postgraduate School — *Ljubljana, Slovenia*

BSc Computer Science and Mathematics — Oct 2021 – Sep 2025
University of Ljubljana — *Ljubljana, Slovenia*

Wolfram Summer School – Science & Technology Track — Jun – Jul 2023
Wolfram Research — *Waltham, MA, USA*

- Mentored by Stephen Wolfram
- Developed multi-agent simulations with Large Language Models
- Composed a Computational Essay published on Wolfram Community

High School Diploma — Aug 2009 – Jul 2021
British International School of Ljubljana — *Ljubljana, Slovenia*

- Elected Head Boy (schoolwide student representative)

Work & Research Experience

Visiting Student Researcher — Jun 2024 – Jul 2025
Stanford University, Computer Science Department — *Stanford, CA, USA*

- On-site Jun–Sep 2024; mentored by Prof. Jure Leskovec
- Researched recursive self-improving multi-agent systems and graph-based RAG approaches
- Co-authored "Optimas: Optimizing Compound AI Systems with Globally Aligned Local Rewards" (ICLR 2026)

Artificial Intelligence Intern for Healthcare Applications — Aug – Sep 2023
Carnegie Mellon University, Machine Learning Department — *Pittsburgh, PA, USA*

- Mentored by Prof. Rayid Ghani
- Fine-tuned and evaluated large language models for healthcare applications
- Developed a reproducible machine learning training and evaluation pipeline
- Contributed to deployment-oriented AI solutions for Indus Hospital & Health Network (Pakistan)

Artificial Intelligence Researcher & Engineer — Aug 2020 – Present
Jožef Stefan Institute, Artificial Intelligence Department — *Ljubljana, Slovenia*

- Research and development in NLP, multi-agent systems, and LLM-based agentic pipelines
- Prototyping, evaluation, and deployment of AI systems; contribution to peer-reviewed publications
- Development of software tools and interactive visualisations for research and demonstrations

Founder & Team Lead — Apr 2024 – Oct 2025
Zopyros Solutions — *Ljubljana, Slovenia*

- Led a small team (4) delivering applied AI/ML systems for large multinational clients
- Designed and implemented LLM-based product catalogue translation for text and image data between low-resource languages
- Developed inventory management and product entity matching systems for cross-retailer price comparison

Publications

Wu S, Sarthi P, Zhao S, Lee A, Shandilya H, Mladenic Grobelnik A, Choudhary N, Huang EW, Subbian K, Zhang L, Yang D, Zou J, Leskovec J. 2026 Optimas: Optimizing Compound AI Systems with Globally Aligned Local Rewards. ***International Conference on Learning Representations (ICLR 2026).***

Mladenic Grobelnik A. 2026 Reliable but Not Right: Automated Evaluation of Generated R&D Ideas. *Information Society – IS 2026, Data Mining and Data Warehouses (SiKDD).* **Best Paper Award.**

Trajkov G, Grobelnik M, Mladenic Grobelnik A. 2025 Between the Lines – Cross Source News Analysis. *Information Society – IS 2025, Data Mining and Data Warehouses (SiKDD).*

Žust M, Grobelnik M, Guček A, Mladenic Grobelnik A. 2025 WinWin Meets – Investigating the Future of Online Meetings. *Information Society – IS 2025, Data Mining and Data Warehouses (SiKDD).*

Žust M, Grobelnik M, Mladenic Grobelnik A, Sittar A. 2025 Towards AI-Powered Real-Time Negotiation Agent. ***SemGenAge Workshop, Extended Semantic Web Conference (ESWC 2025).***

Anžur LN, Jurkovič M, Mladenic Grobelnik A, Godejša J, Alif Ž, Humar M, Bratko I. 2025 Avtomatizacija pelodne analize slovenskega medu z uporabo umetne inteligence. *Studia Forestalia Slovenica*, 189.

Mladenic Grobelnik A. 2025 Automating the Research Process with Agentic Large Language Models. Bachelor's thesis, University of Ljubljana. Mentors: M. Robnik Šikonja, J. Rupnik.

Swati S, Mladenic Grobelnik A, Mladenić D, Grobelnik M. 2023 A commonsense-infused language-agnostic learning framework for enhancing prediction of political bias in multilingual news headlines. ***Knowledge-Based Systems***, 277.

Mladenic Grobelnik A, Zaman F, Espigulé-Pons J, Grobelnik M. 2023 Emergent Behaviors from LLM-Agent Simulations. *Information Society – IS 2023, Data Mining and Data Warehouses (SiKDD).* **Best Paper Award.**

Mladenic Grobelnik A, Novak E, Mladenić D, Grobelnik M. 2022 SLOmet – Slovenian Commonsense Description. *Information Society – IS 2022, Data Mining and Data Warehouses (SiKDD).*

Mladenic Grobelnik A, Grobelnik M, Mladenić D. 2021 Understanding Text Using Agent Based Models. *Information Society – IS 2021, Data Mining and Data Warehouses (SiKDD).*

Mladenic Grobelnik A, Mladenić D, Grobelnik M. 2020 MultiCOMET – Multilingual Commonsense Description. *Information Society – IS 2020, Data Mining and Data Warehouses (SiKDD).*

Mladenic Grobelnik A, Mladenić D, Grobelnik M. 2019 The Next Big Thing in Science. *Information Society – IS 2019, Data Mining and Data Warehouses (SiKDD).*

Keynotes & Invited Talks

Keynote: AI Inventor: Automating Scientific Discovery with LLM Agents — Feb 2026
International Winter AI Olympiad *(UNESCO IRCAI)* — *Ljubljana, Slovenia*

Honours & Awards

Best Paper Award – Conference on Data Mining and Data Warehouses	2026
Junior Fellow – American Slovenian Education Foundation (ASEF)	2024
Best Paper Award – Conference on Data Mining and Data Warehouses	2023
1st Placed Junior Competitive Programmer – Association for Technical Culture of Slovenia	2018
2nd Placed Junior Competitive Programmer – Association for Technical Culture of Slovenia	2018
1st Placed Slovenian – World Scholar's Cup, Yale University Final	2018
2nd Placed European Team – World Scholar's Cup, Kuala Lumpur Global Round	2018
3rd Placed European Team – World Scholar's Cup, The Hague Global Round	2019
1st Placed Debate Team – World Scholar's Cup, Ljubljana Regional Round	2019
1st Placed Argumentative Essay – World Scholar's Cup, Ljubljana Regional Round	2018
Silver Medal – ACM High School Competition in CS and Informatics	2019
Honourable Mention – Junior Balkan Olympiad in Informatics (age 13)	2016

Social & Political Activities

Thessaloniki International Forum, European Youth Parliament	Aug 2021
91st International Session, European Youth Parliament, Hamburg	Sep 2019
5th National Selection Conference, European Youth Parliament Slovenia	Jul 2019
12th Regional Session, European Youth Parliament Slovenia, Ljubljana	Feb – May 2019

Skills

AI & Machine Learning: PyTorch, TensorFlow, Hugging Face Transformers, LLMs, Multi-agent Systems, Graph Neural Networks, Computer Vision, NLP, Model Fine-tuning, RAG Systems, Vector Databases, Knowledge Graphs, Prompt Engineering

Programming: Python, C/C++, Java, JavaScript/TypeScript, SQL, MATLAB, Wolfram Language

Web Development: React, Angular, Node.js, Django/FastAPI, D3.js, Apache ECharts, HTML5/CSS, Bootstrap

Cloud & Infrastructure: Docker, Git, AWS, Microsoft Azure, PostgreSQL, MongoDB, LaTeX

Research & Analysis: Scientific Writing, Data Analysis, Graph ML, Time Series Analysis, Agent-based Modelling, Predictive Modelling

Business & Leadership: AI Strategy & Transformation, Startup Leadership, Project Management, Technical Mentorship, Public Speaking

Languages

Slovenian – Native **Croatian** – Native **English** – C2 **French** – B1