MARFA KOZELETS

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PROFILE

Computational Social Science student at the University of Amsterdam, combining advanced quantitative methods, agent-based modelling, and social network analysis with a philosophical grounding in ethics and epistemology. Research interests span algorithmic governance, AI-mediated cognition, and the social dynamics of emerging technologies. Co-author of a pre-registered conjoint study (UvA × Brunel, preprint stage); independent project work bridges computational methods and political philosophy.

EDUCATION

BSc Computational Social Science *Sep 2024 – Jun 2027 (expected)*
University of Amsterdam, Netherlands

- Coursework: Agent-Based Modelling, Social Network Analysis, NLP, Linear & Logistic Regression, Regularisation, Time Series Analysis, Dimensionality Reduction, Clustering, Data Engineering, Research Ethics, Qualitative Methods

BA Philosophy with Honours (Year 1 completed) *Sep 2023 – Jun 2024*
University of Nottingham, United Kingdom

- Focus on analytic philosophy, epistemology, and philosophy of mind; formal argumentation and logic

International Baccalaureate Diploma Programme *Aug 2021 – Jun 2023*
Sigtunaskolan Humanistiska Läroverket (SSHL), Sweden

RESEARCH & PROJECTS

E-Bike Safety & Infrastructure - Conjoint Study (Preprint) *2025 – Present*
UvA × Brunel University London - Co-author

- Co-designed and pre-registered a discrete choice conjoint experiment on cycling infrastructure preferences
- Pre-registered on OSF; manuscript currently in preprint stage; supervised jointly by UvA and Brunel

Kallipolis - Interactive Philosophical Thought Experiment *Independent Project*
marfakozelets.com/kallipolis

- Built an interactive web-based thought experiment exploring algorithmic classification and justice, grounded in Plato's Republic
- Bridges computational social science and political philosophy; examines how sorting systems encode normative assumptions

Roadmap for Change - Cycling Safety Agent-Based Model *Sep 2025 – Jan 2026*
University of Amsterdam × Tapp Smart Architecture

- Built an ABM simulating cyclist behaviour from 110 sensor-recorded trips to identify unsafe infrastructure hotspots
- Processed GPS data, performed spatial clustering of hard-braking events using GeoPandas and OpenStreetMap
- Key finding: 93.9% of hard braking occurred away from traffic lights - infrastructure quality is the primary risk factor
- Presented results at the Innovation Centre Amsterdam to urban mobility professionals

Street Utopia - 30 km/h Policy Platform *Feb 2025 – Jun 2025*
University of Amsterdam × Tapp Smart Architecture

- Co-built a data-driven platform for European policymakers; conducted stakeholder analysis and focus group interviews with Amsterdam municipality officials
- Designed and ran a narrative persuasion survey experiment

SISTEM-NL Microplastic Solutions *Sep 2024 – Nov 2024*
University of Amsterdam × SISTEM-NL Research Group

– Conducted 8 qualitative interviews across Amsterdam; performed thematic coding and network analysis in Atlas.ti

Schools of the Future - AI in Education *Aug 2022 – Jun 2023*
SSHL ThinkTank × Stellar Capacity

– Led research on AI integration in K-12 education as President of SSHL ThinkTank
– Presented findings to the Swedish Ministry of Education

CODING PORTFOLIO - SELECTED PROJECTS

Completed 13 independent analytical notebooks across two semesters, each applying a distinct method to a self-chosen dataset. Full skills demonstrated: web scraping & API integration, NLP & topic modelling, linear and logistic regression, regularisation, count data regression (Poisson/NB), time series (ARIMA), decision trees, Naive Bayes from scratch, PCA & dimensionality reduction, k-means clustering, social network analysis, agent-based modelling.

Highlighted projects:

– BERTopic topic modelling + Random Forest text classifier on 31,000 Bible verses by genre - ~90% classification accuracy (NLP)
– Social network analysis of 2,322 Epstein emails: mapped 1,119-node communication network, followed by ABM simulating influence spread through the same network structure
– PCA on leukaemia gene expression data (7,128 features): compressed to 2D embedding retaining 91.8% classifier accuracy - strong ALL/AML separation without labels (Dimensionality Reduction)

SKILLS

Programming & Tools

Python (Pandas, NumPy, Scikit-learn, Mesa, NetworkX, NLTK, BERTopic, Matplotlib, Seaborn, GeoPandas, Shapely), JavaScript, HTML/CSS, Git/GitHub, Jupyter Notebooks, Atlas.ti, Kumu, API integration

Methods

Agent-based modelling · Social network analysis · NLP & topic modelling · Supervised classification · Regression (linear, logistic, count data) · Time series analysis · Dimensionality reduction (PCA) · Clustering (k-means) · Survey & conjoint design · Qualitative interviewing & thematic coding · Spatial data analysis

Languages

English (full proficiency) · Russian (native) · Belarusian (native) · Swedish (elementary)

WORK EXPERIENCE

Barista *Nov 2025 – Present*
CoffeeStar Netherlands, Amsterdam

Freelance Tutor - Philosophy & English Language *2023 – 2024*
Online - IB Students

– One-on-one tutoring and exam preparation for International Baccalaureate students

EXTRACURRICULAR

President - SSHL ThinkTank, Sweden *2022 – 2023*

Competitive Ballroom Dancer - National level, Belarus (11 years) *2009 – 2020*