

JÁN PASTOREK

I am Cognitive science graduate student with a passion for mathematics and philosophy of math and science.

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CORE SKILLS

- Paper analysis
- Argumentation
- Writing skills
- Math
- Interdisciplinarity
- Programming

LANGUAGES

- | | |
|---------|----------------------|
| Slovak | Native |
| Czech | Native |
| English | C1 - CAE certificate |
| German | B1 - OLS certificate |
| Russian | Basics |
| Latin | Basics |

RELEVANT EXPERIENCE

MASTER THESIS RESEARCH

COMENIUS UNIVERSITY | JANUARY 2023 - ONGOING

Philosophy and mathematics of partial symmetry in inverse semigroups - is the concept of symmetry (group) insufficient for modern science of complexity?

RESEARCH INTERN - BACHELOR THESIS

SLOVAK ACADEMY OF SCIENCES | JUNE - AUGUST 2020

Bachelor thesis research in application of reinforcement learning for the maximalization of nonlocality benefit in Quantum Nonlocal games - won Dean's award

JUNIOR RESEARCH FELLOWSHIPS

DEKK INSTITUTE | JUNE 2020 - ONGOING

Understanding disintegration of social cohesion in the West through agent-based modeling and data analysis in conjunction with World Value Survey

CULTUREPULSE.AI | MAY 2022 - APRIL 2023

Agent based modeling in JAVA - computational model of how information (specifically emotions anxiety) can spread and escalate among members of groups in conflict zones, project is in conjunction with Cambridge University's Woolf Institute

EDUCATION

MEI:COGSCI, SLOVAKIA & AUSTRIA

MSC COGNITIVE SCIENCE | 2021 - ONGOING UNTIL JUNE 2023

- 1.14 (on scale from 1 (best) - 4 (worst)) --> predicting to complete with Honors
- Electives in formal logic, network science, quantum foundations (Gödel's theorems and beyond)
- Research projects
 - whether semantic primitives occupy mathematically significant (vectorial) places in language Word2Vec models
 - exploration of Austrian roots of cognitive science via citation networks and NLP
- conferences attendance, presentations and poster - see below

ST JOHNS COLLEGE, USA, SANTA FE & ANNAPOLIS

NORTH HALF-MA, LIBERAL ARTS CERTIFICATE | 2021 - 2022

- GPA 3.83 (on scale from 4 (best) - 0 (worst))
- Philosophy of math and science - Classics of natural science, mathematics, and philosophy - Oxbridge style of education - tutorials, seminars and essays

COMENIUS UNIVERSITY, SLOVAKIA

BSC COMPUTER SCIENCE WITH HONORS | 2018 - 2021

- 1.2 (on scale from 1 (best) - 4 (worst)) --> completed with Honors & awards
- electives in math and cognitive science, attendance of conferences

COLLEGIUM OF ANTON NEUWIRTH

LIBERAL ARTS CERTIFICATE | 2018 - 2020

- Classics of philosophy - Oxbridge style of education - tutorials 1 on 3, seminars and essays weekly

BILINGUAL GYMNASIUM OF ST. EDITH STEIN

- 5 years, 60% subjects in English and tutoring younger students

PUBLICATIONS

AUSTRIAN ROOTS OF COGNITIVE SCIENCE THROUGH THE IDEAS OF ERNST MACH INTERDISCIPLINARY APPROACH (IN PROGRESS)

- main author, abstract presented at ŠVK (received Laureat award) and to be presented at Kognicia a Umely život conference 2023, currently in the process of rewriting for publication the journal in history/philosophy of science Co-author: Doz. Dr. Isabella Sarto-Jackson isabella.sarto-jackson@kli.ac.at Planned to send for publication: June/July

INFORMATION ESCALATION IN AGENT-BASED MODELLING (IN PROGRESS)

- co-author, currently in the process of writing the publications Co-authors: Justin E. Lane, DPhil ; Prof. LeRon Shults Planned to send for publication: July/August

CONFERENCES

KOGNICIA A UMELY ZIVOT - 2019 - ATTENDANCE

INDETERMINACY IN PHYSICS CONFERENCE - 2022 VIENNA - ATTENDANCE

ŠTUDENTSKÁ VED. KONFERENCIA - APRIL 2023 - PRESENTATION OF CONFERENCE PAPER & ATTENDANCE

- going to present results from Mobility project

KOGNICIA A UMELY ZIVOT - JUNE 2023 - ATTENDANCE

- going to present results from Mobility project

MEI:COG SCI CONFERENCE- JUNE 2023 BUDAPEST

CONFERENCE PRESENTATION POSTER & ATTENDANCE

- Cognitive science conference - going to present results from Master Thesis and Semestral Project

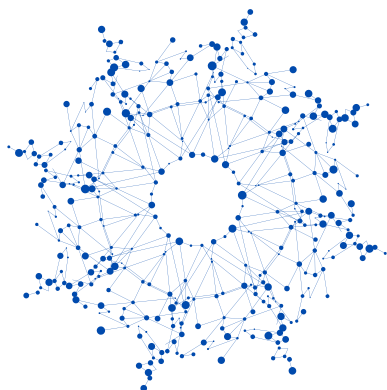
AWARDS

- Dean's award for excellent bachelor thesis
- Dean's award for excellent study results
- Laureat at ŠVK
- 2nd place Data and Art faculty competition
- 2nd place - Disinformation Hackathon organized by Slovak government (MIRI) (<https://www.hacknime.to/boj-proti-dezinformaciam/>) - graph solution with AI

GYMNASIUM / HIGH SCHOOL TEACHER

UNITED SCHOOL OF ST URSULA | OCTOBER
2020 - JUNE 2021

Teaching 3 hr/week computer science with liberal arts
principles



RELEVANT EXTRACURRICULUM

AGENT-BASED MODELING INSTRUCTOR

- Udemmy course with ~ 200 students: <https://www.udemy.com/course/2020-intro-to-agent-based-modeling-simulation-ai-in-netlogo/>

COMENIUS UNIVERSITY COLLEGIUM

- 1 year of weekly tutorials and seminar discussions on science, AI and philosophy, **Certified**

COLLEGIUM FOR HIGH SCHOOLS

- 2 years of weekly seminar discussions on moral, political philosophy, history, metaphysics and leadership, **Certified**

SUMMER UNIVERSITY AT COLLEGIUM OF ANTON NEUWIRTH

- 9 days, seminar discussions on science, moral and political philosophy

CENTRAL EUROPEAN SUMMER SCHOOL - POLAND, KRAKOW

- 9 days of seminar discussions on moral, political philosophy and leadership, **Certified**

INTERNATIONAL SUMMER SCHOOL IN COGNITIVE SCIENCE - BULGARIA

- 2 weeks summer school, daily lectures and seminars, **Certified**

THOMAS AQUINAS INSTITUTE SUMMER SCHOOL - IRELAND

- 1 week of seminars on metaphysics and virtue ethics

ACADEMY OF GREAT WORKS - WESTERN CLASSICS - SLOVAKIA - CERTIFIED

- Participant, later group leader: 2 years of weekly seminars on western classics

REINFORCEMENT LEARNING - UDEMY COURSE, CERTIFIED

QUANTUM PHYSICS (FOR PHILOSOPHER) - UDEMY COURSE, CERTIFIED

AQUINAS 101 - THOMISTIC INSTITUTE ONLINE COURSE

- 2 years of weekly meetings with boys and yearly summer camps

YOUTH GROUP LEADER - SALESIAN CENTRE IN KOSICE

REFERENCES

- doc. RNDr. Tatiana Jajcayová, PhD., now lecturer at Comenius University with focus on abstract algebra and graph theory. - **Relation: Master thesis supervisor**
- Mgr. Martin Luterán M.Jur., M.Phil., D.Phil. at Oxon now rector at Collegium of Anton Neuwirth and teacher of philosophy, martin.luteran@kolegium.org - **Relation: teacher-student**
- Jaroslav Varchola, PhD. MSt Philosophy of Science at Oxon, now University Lecturer at Commenius University with focus on quantum brain hypothesis, jaroslav.varchola@fmed.uniba.sk - **Relation: teacher-student**
- prof. RNDr. Ľubica Beňušková, PhD. Professor at the Comenius University focus in computational modelling, lubica@ii.fmph.uniba.sk - **Relation: teacher-student**
- Justin E. Lane, DPhil (Oxon), now CTO at ALAN Analytics and CEO of CulturPulse.ai focusing on AI and Agent Based modeling for social and religious studies, justin@culturepulse.ai - **Relation: head of research - junior researcher**
- Mgr. Daniel Nagaj, PhD. at MIT, now postdoc at Slovak Academy of Sciences focusing on Quantum Information and Theoretical Computer Science, fyzinaga@savba.sk - **Relation: Bachelor thesis supervisor**
- Mgr. Pavol Kosnáč, MSt Religion and Oriental Studies at Oxon, now director of Dekk institute focusing on understanding of social cohesion in Slovakia - **Relation: head of research - junior researcher**
- Doz. Dr. Isabella Sarto-Jackson, now researcher at Konrad Lorentz Institute in Klosterneuburg, isabella.sarto-jackson@kli.ac.at - **Relation: Mobility project supervisor**

