

Martin Vaněk

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EDUCATION

CUNI MFF, THEORETICAL PHYSICS MGR.

2022 – PRESENT

- Master's of Theoretical Physics at the Faculty of Mathematics and Physics, Charles University (CUNI MFF), Prague, Czech Republic
- Grade average 1.00 (best possible)

CUNI MFF, PHYSICS Bc.

2019 – 2022

- Physics Bachelor at CUNI MFF
- Graduated Summa Cum Laude with a grade average of 1.00 (best possible)

ACADEMIC PROJECTS

INTERNSHIP @ EPFL – STATISTICAL PHYSICS OF AUTOENCODERS

MAR. – MAY 2024

- Three months paid internship at the Statistical Physics of Computation Laboratory at EPFL

OPTIMIZATION OF THE PERFORMANCE OF FUEL-CELL STACKS USING AN ULTRASONIC HUMIDIFIER

2021 – 2022

- Bachelor thesis at the Department of Surface and Plasma Science (DSPS), CUNI MFF

RESEARCH OF HYDROGEN FUEL CELLS AT THE DSPS CUNI MFF

2 WEEKS, 2021

- Summer project grant awarded by the Department of Surface and Plasma Science, CUNI MFF

BEAM ALIGNMENT IN THE COMPASS EXPERIMENT, CERN

1 WEEK, 2021

- A week-long project in CERN with the Department of Low-Temperature Physics, CUNI MFF

SELECTION OPTIMIZATION OF B-HADRONS IN THE ATLAS EXPERIMENT IN CERN

~4 MONTHS, 2020

- Data analysis in ROOT/C++ and Python at the Institute of Particle and Nuclear Physics, CUNI MFF

PROFESSIONAL EXPERIENCE

HEAD ORGANIZER OF FYKOS

2021 – PRESENT

- Leading a group of ~60 students organizing major non-profit educational events in physics for high-school students – e.g., Fyziklani (~1200 participants from 21 countries in person in Prague), and Physics Brawl Online (online, over 4500 participants from over 60 countries)
- Experience with leadership, (project) management, community building, founding a non-profit, educating and lecturing, outreach, communication with high-ranking officials of companies and governments, etc.

ORGANIZER @ EUROPEAN SUMMER PROGRAM ON RATIONALITY

SUMMER 2022 AND 2023

- Ten-day camps for highly talented young students (~16-20 years old) teaching various valuable skills from mathematics and applied rationality to Artificial Intelligence
- Operations at ESPR camp 2022; operations and lectures at the related Program on AI and Reasoning 2023

GIVING WHAT WE CAN AMBASSADOR FOR PRAGUE

SEP. 2021 – JAN. 2023

- A community-building and outreach volunteer role in an organization that seeks to make giving to effective charities a cultural norm
- Organizing several outreach events and meetups, notably three Giving Games

CONFERENCES, EVENTS, AWARDS, PUBLICATIONS

#ČESKOBUODOUCNOSTI CONFERENCE

OCT. 2023

- Invited to participate in the conference #ČESKObudoucnosti, i.e. “Czechia for Future”

INTERNATIONAL CONFERENCE OF PHYSICS STUDENTS 2023

SEP. 2023

- Presented a poster and a lecture on my work on hydrogen fuel cells and the FYKOS educational group

EXPEDITION TO SOUTHEAST ASIA

MAR. 2023

- Month-long journey for promoting educational activities at institutions in Southeast Asia, including meetings at institutions such as the Ministry of Education, Science and Technology of Nepal or the Honorary Consulate of the Czech Republic in Nepal; during preparations also Embassies of India, Malaysia, or Vietnam in Prague

PUBLISHED TWO YEARBOOKS OF FYKOS – FOR 2021/22 AND 2022/23

- Czech publications on the workings and contributions of FYKOS in said years
- ISBN 978-80-7378-469-0 and 978-80-7378-493-5

EFFECTIVE ALTRUISM GLOBAL CONFERENCES

2022 AND 2023

- Events on using evidence and reason to determine and implement the most effective ways to benefit others
- Conferences EAGxOxford 2022, EAGxPrague 2022, EAG London 2022 and 2023

SCIENCON, POLAND

2022

- Selected for a science workshop focused on choosing and planning a career path in physics

HUMAN ALIGNED AI SUMMER SCHOOL

2022

- Discussions, workshops, and talks covering the latest trends in research on how to make AI safe and beneficial

EXPO OF PHYSICS TEACHERS' IDEAS

2021 AND 2023

- Presented the educational activities of FYKOS

COMPETITIVE EXPO OF SIGNIFICANT ACTS IN PHYSICS OUTREACH

2021 AND 2023

- Won a special prize “Significant Act in the Popularization of Physics (and Mathematics)” for presenting the educational events of FYKOS

MODERATOR OF THE PHYSICS OUTREACH SESSION OF “IAPS AT A DISTANCE”, ONLINE

2020

- Event organized by the International Association of Physics Students

PARTICIPANT IN FYKOS PHYSICS CORRESPONDENCE COMPETITION, ONLINE

2019

- First place in the category of high-school seniors

AWARD SERGIO MARCHIONNE

2019

- Given to children of the employees of the company IVECO Czech Republic for excellent study results

AWARD FOR REPRESENTATION DURING ENTIRE STUDIES

2019

- Received from the high-school dean of the Gymnasium Vysoké Mýto

OTHER SKILLS AND INTERESTS

SKILLS

- Programming: Python, C++, web development (HTML, CSS, PHP, Nette...), basics of ML in TensorFlow
- Certificate as medical attendant for recreational and recuperative programs

INTERESTS

- Reading educational non-fiction
- Running, bouldering
- Optimizing long-term sustainable productivity