Vojtěch Votruba

(last update: February 2, 2025)

✉ vv.votruba@gmail.com   ☎ +420 ███████

in https://www.linkedin.com/in/vojtech-votruba/   ○ https://github.com/vojtech-votruba

Education

› Charles University, Prague   *B.Sc. in Physics, 2022 – Present*

– Merit scholarship every semester (average 1.16).

› Johannes Kepler Grammar School, Prague   *High School Diploma, 2018 – 2022*

– Graduated with top grades in Mathematics, Physics, and English.

Work Experience

› ELI Beamlines   *Paid Internship, 6 months, 2024*

– Developed a simulation in Python that was used for assessing the effects of a high-power laser refracting on a plasma emitting nozzle.

› Dept. of Atmospheric Physics, CUNI   *Paid Internship, 6 months, 2023*

– Contributed to the Department's daily used numerical Fortran code by implementing a new method to account for subgrid-scale turbulence in atmospheric fluid dynamics simulations.

Skills

› Programming & Tools: Python (advanced; especially experienced in NumPy, scikit-learn, PyTorch, matplotlib), JavaScript (working vanilla JS knowledge; some experience with npm and frontend frameworks), Git, TeX

› Mathematics/Physics: Good knowledge of Linear Algebra, Numerical Methods, Real Analysis & the theoretical foundations of Machine Learning. Strong knowledge of Physics, especially in Thermodynamics, Quantum Theory, and Analytical Mechanics. Both were acquired from university studies.

› Languages: Czech (native), English (C2, CAE), French ($\sim$ B1)

Projects

› Recognition of Dissipative Systems Using ML   `PyTorch`

– Physics-informed deep neural net using geometrical irreversible thermodynamics to predict the evolution of dissipative systems, e.g. chemical reactions. This project is a part of my undergraduate thesis under Michal Pavelka. [GitHub link]

› Personal Website   `AstroJS`, `TailwindCSS`

– My personal website [vojtech-votruba.github.io] containing some information about me.

› Virtual Interactive Tour of GJK   `JavaScript`

– Developed with my friends for our high school during the covid lockdown in 2020. [website link]

Interests

› Hiking, camping and recently hitchhiking; Reading and debating

› Board games and video games, especially chess; Occasionally running and bouldering