# Vojtěch Votruba

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## EDUCATION

- **Charles University, Prague**: *B.Sc. in Physics (2022 - Present)*
  - Consistently awarded merit scholarships each semester.
- **Johannes Kepler Grammar School, Prague**: *High School Diploma (2018 - 2022)*
  - Graduated with honors in Czech, Mathematics, Physics, and English.

## WORK EXPERIENCE

- **ELI Beamlines**: *Internship (6 months, 2024)*:
  - Developed Python simulations for laser beam propagation in plasma wakefield acceleration experiments.
- **Department of Atmospheric Physics, CUNI**: *Internship (6 months, 2023)*
  - Contributed to the Department's numerical Fortran code by implementing a new method accounting for subgrid-scale turbulence.
- **Broadcom Inc.**: *High School Internship (1 week, 2019)*
  - Web app development using Django.

## SKILLS

- **Programming & Tools**: Python (advanced; good experience in NumPy, scikit-learn, PyTorch, matplotlib), JavaScript (basic level; some experience with npm and frontend frameworks), SQL (working knowledge of standard query operations), Git, LaTeX
- **Mathematics/Physics**: Strong foundation in Linear Algebra, Numerical Methods, and Real Analysis. Wide knowledge of Physics especially in Thermodynamics, and Analytical Mechanics.
- **Languages**: Czech (native), English (C2, certificate), French (low B1 level)

## PROJECTS

- **Recognition of Dissipative Systems Using ML** [NumPy, 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. [GitHub link]
- **Personal Website** [AstroJS, TailwindCSS]: My personal website [vojtech-votruba.github.io]

## INTERESTS

- Hiking, camping and recently hitchhiking; Reading and debating
- Board games and video games, especially chess
- Occasionally running and bouldering