Josef Zelinka

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EDUCATION

- **Czech Technical University** — Prague, CZ
  Bachelor studies - Cybernetics and Robotics (Cum Laude) — *Sep 2019 – Jun 2022*

- **Tallinn Technical University** — Tallinn, EST
  Erasmus studies — *Sep 2022 – Jan. 2023*

- **Czech Technical University** — Prague, CZ
  Master studies - Open Informatics with focus on AI — *Sep 2022 – Present*

WORK AND INTERESTS

- **Computational robotics laboratory at Czech Technical University**
  Research fellow — *Jul 2020 – Oct 2023*
  - **Experience**: As the topic of robotics interests me greatly, I joined the Computational laboratory during the summer of 2020 to get more experience working in the field of robotics. From the many interesting possibilities present, I chose to study heterogeneous teams of robots with a focus on the robots' ability to assess traversability from the collected dataset. The topic involved many challenging yet interesting tasks such as learning to operate the robots to collect datasets, conducting experiments, necessary data processing, and utilization of various machine learning principles. Thanks to the obtained skills, I was able to write several research papers.
  - **Published papers:**
    * *Traversability transfer learning between robots with different cost assessment policies*, J. Zelinka, M. Prágr, R. Szadkowski, J. Bayer, J. Faigl, 2021 Modelling and Simulation for Autonomous Systems (MESAS), 2022
    * *Deep Transfer Learning of Traversability Assessment for Heterogeneous Robots*, J. Zelinka, M. Prágr, R. Szadkowski, J. Bayer, J. Faigl, Information technologies – Applications and Theory (ITAT), 2022

- **Railway modeling club at Podbaba**
  Lecturer — *Sep 2017 – Present*
  - **Experience**: During my childhood, I have always shown a great passion for railway and modeling. Later I joined the Railway modeling club at Podbaba. Thanks to this opportunity, I improved my engineering skills and learned to use a 3D printer and laser cutter. Nowadays, I work as a lecturer for younger members of our club to set them up on their modeling journey.

- **Spirála**
  Member of comitee — *Feb 2022 – Present*
  - **Experience**: Spirála is an organization that aims to bring together young adults and teenagers from Germany and the Czech Republic to achieve a better understanding between the countries. As the contact with Germany and the future of Europe interest me greatly, I help to organize and prepare the events.

PROGRAMMING KNOWLEDGE

- **Python**: experience with libraries Numpy, Scipy, Pytorch, Tensorflow, OpenCV, Flask

- **C/C++**: with the focus on ROS and embedded programming

- **Linux, Shell scripting, Git, SQL**

- **MATLAB**

- **F#**

LANGUAGES

- **German**: C1 (DSD diploma + interpreting course certificate)

- **English**: B2 (diploma at Czech Technical University)