

Technical Skills

Programming Languages: Java, C/C++, C#, Python, JavaScript,

Artificial Intelligence: PyTorch, TensorFlow, HuggingFace, Large Language Models (BERT, GPT), Generative Adversarial Networks, Computer Vision, LSTM, Data Mining.

Web Development: Typescript, HTML, CSS, ReactJS, MySQL, NodeJS (Express.js), Flask

Software Engineering: Git/GitHub, Azure, AWS, Docker, Github Actions, linux OS.

Robotics: Navigation and Path Planning, MATLAB, Robot Operating System (ROS) and Gazebo, Embedded C, AVR, ARM LPC1768,

Work Experience

GoodAI

Prague, Czech Republic

Full Stack Software Developer

Aug 2022 – Jan 2023

- Designed and implemented a user-friendly ground station control software using React.js for efficient drone control.
- Implemented object detection and tracking for drones using deep learning and computer vision.
- Developed ROS node for drone navigation and control. Simulated controller in Gazebo and UE4.
- Set up REST API for drone app using C# and .NET to provide necessary information for drone during mission.

Czech Technical University (CTU)

Prague, Czech Republic

Software Developer and Researcher

Aug 2021 – Aug 2022

- Led the development of robust Computer Vision and Deep Learning stacks, enabling precise object detection and tracking in complex environments for the Roboroyale project.
- Worked as software engineer, developing and maintaining code based for the robot software. Involved in all aspects of software engineering.

Projects

Music Generation with GANs and Large Language Models

Jan 2023 - Feb 2024

- Created an AI model for real-time music generation using generative adversarial networks (GANs) and large language models to accompany human players.
- Developed and deployed the AI model as a containerized web application on Azure, building both the frontend and backend.

Web Development for SwarmJS

Jun 2023

- Integrated the ReactJS frontend with external simulation engines such as Python via WebSockets.
- Developed a Python backend using Flask to enable the utilization of deep learning capabilities.

Developing Machine Learning Pipeline for Robots

Aug 2021 - May 2022

- Implemented navigation software for robots using computer vision, with deep learning tasks handled in Python and navigation tasks in C++.

Robot Simulators Development

Sep 2019 - Apr 2021

- Developed custom robot simulators from scratch using ROS and Python, which are still actively used in the KOVAN lab.

Publications

Journals and Conferences in AI and Robotics

Jan 2023 - Feb 2024

- Published significant papers in robotics and AI, focusing on robot navigation, computer vision, and solution architecture. For full details, visit my Google Scholar: [Google Scholar Profile](#).

Memorial University of Newfoundland (MUN) <i>MSc in <u>Computer Science</u> Focus: Generative AI and Large Language Model for Real-time Music</i> <ul style="list-style-type: none">• CGPA: 4/4	St. John's, NL, Canada <i>Jan 2023 - Jul 2024</i>
Middle East Technical University (METU) <i>MSc in <u>Mechanical Engineering</u> Focus: Reinforcement Learning, Software Development</i>	Ankara, Turkey <i>Sep 2019 - Sep 2021</i>
University of Tabriz <i>BSc in <u>Electrical Engineering</u> Focus: Software Development for Robots</i>	Tabriz, Iran <i>Sep 2015 - Jun 2019</i>