

ARASH SADEGHI AMJADI

arashsadeghiamjadi.me[Google Scholar](#)

St. John's, NL

arash.sadeghi1997@gmail.com[linkedin.com/in/arash-s-amjadi](https://www.linkedin.com/in/arash-s-amjadi)<https://github.com/arash-sadeghi>

Education

Memorial University of Newfoundland (MUN)

St. John's, NL, Canada

MSc in Computer Science **Focus:** Generative AI and Large Language Model for Real-time Music

Jan 2023

- CGPA: 4/4

Middle East Technical University (METU)

Ankara, Turkey

MSc in Mechanical Engineering **Focus:** Reinforcement Learning, Software Development

Sep 2019 - Sep 2021

University of Tabriz

Tabriz, Iran

BSc in Electrical Engineering **Focus:** Software Development for Robots

Sep 2015 - Jun 2019

Technical Skills

Languages and Technologies: Java, C/C++, C#, Python (PyTorch, TensorFlow), ReactJS, NodeJS, JavaScript, Typescript, HTML, CSS, Git/GitHub, Azure, AWS, Docker, Jenkins, PostgreSQL, linux OS.

Skills: Machine/Deep Learning(CV, GAN, LLMs, LSTMs), Data Mining/Processing, Robotics, Software Engineering, Web development (Full Stack)

Work Experience

MUN

St. John's, NL

Teaching Assistant

Jan 2023

- Assisted courses in game development (C++), Object-Oriented Programming with Java, and AI fundamentals in JavaScript.

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.

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

Portfolio Website (ReactJS & MaterialUI)

Mar 2024

- Designed and developed a dynamic, user-friendly portfolio website using ReactJS and MaterialUI. View more projects at arashsadeghiamjadi.me.

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.