

# Emin Samadov

Software Engineering Student (Robotics Systems) · Vilnius University

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## PROFILE

Software Engineering student specializing in robotics systems with strong foundations in algorithms, operating systems, and autonomous robot control. Particularly interested in autonomous systems, real-time control, and the interaction between software and physical hardware.

## EDUCATION

### Vilnius University

*Bachelor of Software Engineering — Robotics Systems*

*Vilnius, Lithuania*

*2023 – Present*

### ADA School

*High School — Mathematics & Informatics Track*

*Azerbaijan*

*2021 – 2023*

## SKILLS

**Programming:** Python, C++, SQL, Bash

**Robotics:** ROS2, Motion Planning, Control Algorithms, Autonomous Navigation

**Tools & OS:** Linux, Git, Version Control, VS Code

## RELEVANT COURSEWORK

- Operating Systems and Concurrent Programming
- Distributed Program Construction
- Reasoning About Algorithms
- Fundamentals of Parallel Programming

- Advanced Object-Oriented Programming
- Introduction to Program Design
- Algorithmic Thinking
- Computational Thinking

## PROJECTS

### Autonomous Mobile Robot Control System

*Academic Project*

- Designed control logic for a mobile robot to navigate between defined locations in a structured environment.
- Implemented obstacle detection and avoidance using sensor-driven reactive algorithms.
- Developed and evaluated multiple navigation strategies under varying obstacle complexity, validated through repeated experimental runs.
- Applied smooth acceleration and deceleration techniques to improve motion stability and reduce drift.

### Embedded Systems and Robotics Prototyping

*Personal Projects*

- Designed and implemented robotics and embedded system prototypes integrating software logic with physical components.
- Developed real-time control logic under hardware and timing constraints; implemented low-level motor and actuator control.
- Documented system behavior and refined hardware-software interactions through iterative testing and experimentation.

## EXPERIENCE

### Technical & IT Support Assistant (Part-Time)

*Azerbaijan*

*Automotive Service & Parts Center*

*Summer 2025*

- Provided technical and IT support in a multi-service automotive repair and parts center during peak summer workload.
- Assisted with installation and maintenance of vehicle camera systems and electronic components.
- Supported diagnostics of automotive electronic systems and maintained inventory management systems.

## LANGUAGES

**English:** Fluent

**Russian:** Native

**Turkish:** Fluent

**Azerbaijani:** Native

## AWARDS & COMPETITIONS

- 2<sup>nd</sup> Place** — Regional Mathematics Competition (High School, 2022).
- 3<sup>rd</sup> Place** — Informatics / Programming Competition (High School, 2023).
- Participant — Multiple school-level STEM competitions in mathematics and informatics (2021–2023).