Edvardas **Vysniauskas**

Robotics Engineer

Warsaw, Poland

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Summary

I am a robotics and software engineer interested in various robotics applications both in industry and research. My experience includes extensive work with various sensors, including lidars, radars, IMUs, and GPS. Currently, I am working as Autonomous Nagivation Engineer in indoor robotics industry. As my future career, I am looking to continue working in the robotics sector or in automotive industry.

Skills

Programming/Frameworks C++, C#, Python, ROS, Bash, LaTeX, GNU Octave, OpenCV
Protocols CAN, Mavlink, UART, SPI
Software KiCad, FreeCAD, Ardupilot
Software Development Git, SVN, Jenkins

Work Experience

United Robots

Warsaw, Poland

Autonomous Navigation Engineer

August 2023 - Present

- Integrated AruCo marker detection as landmarks for the SLAM algortihm.
- Developed new features for Google cartographer SLAM algortihm to optimize indoor robotics operations.
- Developed automation tools for SLAM performance evaluation.
- Integrated unit tests on the robot software suite.
- Created and performed explaratory testing techniques for the robots.

Wärtsilä Voyage

Leicester, UK

Software Engineer

August 2021 - July 2023

- Improved quay detection with radar performance in vessel docking operations by 20%.
- Developed radar based SLAM for inland waterway vessel operations for GNSS redundancy.
- Led DevOps migration to Git via development of automation tools and training.
- Supported customers with troubleshooting.

Dynium

Oxford, UK

Autonomous Robotics Software Engineer

December 2018 - August 2021

- Developed software for different sensor modules, such as lidars, ultrasound, IMU, that were used for path planning and obstacle avoidance.
- Designed and tested ultrasound sensor module software and PCBs.
- Developed custom CAN and handshake protocol for team's requirements.
- Designed robot hardware and software test rig for local testing of software.

Education

Udacity

UK

Sensor Fusion Engineer Nanodegree

2022

- Modules: Lidar, Cameras, Radar and Kalman Filter.

Univesity of Southampton

Southampton, UK

MSc in Unmanned Aircraft System (UAS) Design

2017-2018

- MSc thesis 'Optimisation of crossflow fan-wing aerofoil'.

Aalborg University

Aalborg, Denmark

BSc in Robotics

2014-2017

- BSc Project 'Autonomous robot for object retrieval'. Robot competed in 'Robot's Intellect 2017'.

Honors & Awards

2018 **2nd Place,** IMechE UAS Challenge 2018 *UK*

Projects

Multiconfiguration Drone platform *January 2022 - Present*

- Project goal is to design platform to be able to use different drone configurations.
- Developing software for autonomous drone operations using Jetson Nano with Docker and ROS2.
- Investigating usage of visual odometry and SLAM with Intel Realsense camera for obstacle avoidance.
- Developing software for AruCo grid target detection using Rapberry HQ camera and Jetson.

F1 Result Guessing Android App *January 2021 - September 2024*

- Develop F1 race result guessing app for Android using Dart and Flutter.
- Develop Web version of the same application to be used on any device regardless of OS.