Dmitrii Varlamov

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OBJECTIVE

Enthusiastic engineering graduate with expertise in embedded systems, robotics, and software development. Skilled in C, C++, Python, ROS, OpenCV, OpenGL, and PLC programming. Passionate about real-time systems, sensor integration, and industrial automation. Strong problem-solving skills and ability to communicate complex technical concepts. Seeking a role to apply my expertise in embedded systems, robotics, or automation.

EDUCATION

Bachelor of Engineering in Mechatronics
Technical University of Applied Sciences Würzburg-Schweinfurt – August 2023
Specialization: Machine learning, Robotics and Automation

ENGINEERING PROJECT

Computer Vision and Object Detection
Tools: Python, OpenCV
Contributions:
- Implemented camera calibration process.
- Developed a pose estimation algorithm for 3D camera positioning.
- Designed an image stitching pipeline to merge multiple images seamlessly.

THESIS

Virtual LiDAR Simulation
Tools: Unity, ROS, C#
Contributions:
- Developed a virtual LiDAR simulation for testing autonomous vehicle navigation algorithms.
- Integrated Unity with ROS for real-time sensor data processing and environmental interaction.
- Presented the project at a university showcase, receiving positive feedback from professors

LANGUAGES

English - C1
German - B1
Russian - native tongue

SKILLS

Programming Languages:
- C, C++ – Command-line & graphical applications (OpenCV, OpenGL, ImGui, Qt, GLM, Assimp).
- Python – Machine learning (Pandas, Scikit-learn), camera calibration (OpenCV).
- C# – LiDAR simulation in Unity (ray tracing, GPU programming, HLSL).
- Java – Basic knowledge.

Tools & Software:
- MATLAB/Simulink – Control system modeling.
- Unity – Physics simulation (LiDAR).
- Siemens STEP 7 (TIA Portal) – PLC programming (ladder logic).
- OpenModelica – Motor control simulation.
- LTspice/Digital – Circuit & logic simulation.
- LabVIEW – Microcontroller programming.
- Autodesk Fusion 360 – 3D CAD modeling.

Embedded Systems & Robotics:
- Arduino – CNC machine with stepper motor control.
- ROS – Sensor data collection in Unity.

Algorithms & Computer Architecture:
- Algorithms & Data Structures – Binary search, sorting, trees, queues.
- Computer Architecture – Processor design, memory hierarchy, system operations.

Interpersonal & Professional Skills:
- Team-oriented & independent work.
- Quick learner & problem solver.
- Clear communicator.
- Detail-oriented in programming and design.

WORK HISTORY

06.2019 - 09.2022 **Novazelte** (Germany)
Tent installer/driver
07.2016 - 05.2018 **RossLogistic** (Russia)
Forklift driver
04.2016 - 06.2016 **Hyundai Motor Manufacturing** (Russia)
Operator in the welding shop
10.2010 - 06.2016 **IKEA** (Russia)
Forklift driver
06.2009 - 09.2009 **Coca-Cola Enterprises** (USA)
Expediter
06.2007 - 09.2007 **Food Lion grocery store** (USA) Merchant

CERTIFICATIONS

- European Driving License (BE)
- Public speaking certificate
- Electric circuit Installer certificate
- Electric and Gas Welder certificate (MIG/MAG)