Milind
Prinz-Rupprecht-Str. 10B
93053 Regensburg
Email: milind.official98@gmail.com
Phone: +49-17646501001

Lemvos GmbH
Am Mittleren Moos 48
86167 Augsburg

Regensburg, 19.08.2025

Robotics Software Engineer Application

Respected Hiring Team,

I am excited to apply for the Robotics Software Engineer position at Lemvos GmbH, inspired by your participation in the SMAUG EU initiative, utilizing USVs and DockMaster technology to enhance port safety through autonomous operations, as noted on LinkedIn. Your innovative work in marine robotics motivates me to contribute my expertise in ROS and C++ to your Augsburg team.

During my Master's program, focusing on AI, I primarily used Python and Ubuntu as my development environment to develop applications for AI-driven tasks. One notable project involved autonomous navigation of the Turtlebot3 in a selected area, incorporating object detection and avoidance, while also mapping the area and ensuring the robot could return to its origin. This project utilized ROS (Noetic) and Gazebo for virtual testing, with key ROS nodes developed in both C++ and Python. Additionally, I managed a CI/CD pipeline for software testing and validation against key performance indicators (KPIs). Data from these operations was efficiently stored, analyzed, and optimized using MySQL. At AVL, I worked on the Adaptive AUTOSAR middleware (Service Oriented Architecture) and developing its applications in C++. These Adaptive Applications were deployed on a custom Real Time Linux Operating System using Yocto project. After this, I continued at AVL for my Master's thesis, where I was tasked with upgrading their legacy FMU Generation Utility (written in C++) from the FMI 2.0 to the FMI 3.0 standard, thereby enhancing the functionality of the existing tool for Co-simulation of automobile parts built in different systems like MATLAB, C++ etc. In my Thesis, I also leveraged Google Protocol Buffers through ASAM OSI for efficient data serialization, streamlining integration of sensor and environmental models in driving simulations, enhancing virtual testing capabilities. At Persystems, I was a Junior C++ Developer, where I developed Virtual TestBench, a Qt Desktop application for simulations of electrical components, leveraging Persystems' proprietary library. My responsibilities included designing the UI/UX in the Qt Creator IDE with C++ to ensure a seamless user experience. I have also implemented the application's logic by connecting UI widgets to custom slots, using Qt's signal-slot mechanism to manage data flow between the UI and the backend operations interfacing with Persystems' testbench library. Additionally, I have built a separate license check application for Virtual TestBench using Qt and C++.

Drawing from my Masters work on the Turtlebot3 project, where I developed ROS nodes and utilized NVIDIA Jetson hardware for autonomous navigation, I am well-prepared to excel as a Robotics Software Engineer at Lemvos GmbH. My expertise in ROS, ROS 2, and C++, combined with hands-on experience in Gazebo and SLAM, aligns with developing software for your USVs and DockMaster technology. My work on Adaptive AUTOSAR middleware using Service-Oriented Architecture at AVL further demonstrates my capability to handle distributed systems, crucial for autonomous maritime operations. Additionally, my skills in CI/CD pipelines, Azure DevOps, and Linux systems, along with proficiency in Git and CMake, ensure I can contribute to robust robotics software development for port safety solutions.

Among the many skills I have honed throughout my career, teamwork stands out as the most pivotal. My past experiences have emphasized the fundamental truth that sustainable solutions are often the result of collaborative efforts, rather than individual brilliance. I am eager to become part of the team and am committed to contributing my utmost from the very start, beginning immediately.

I would be greatly honored to receive an invitation for an interview.

Yours sincerely,
Milind