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Rocket Factory Augsburg AG
Berliner Allee 65
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Junior LabVIEW Software Engineer Application

Dear Hiring Team,

I am thrilled to apply for the Junior LabVIEW Software Engineer position at Rocket Factory Augsburg AG, inspired by your preselection as one of five candidates for the European Space Agencys European Launcher Challenge in July 2025, recognizing your innovative approach to low-cost launch solutions with the RFA ONE rocket, as announced by ESA. Your pioneering work in advancing commercial space transportation motivates me to contribute my software development expertise to your dynamic team in Augsburg.

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. Parallel to my academic pursuits, during nine months at AVL, I worked on the Adaptive AUTOSAR middleware (Service Oriented Architecture) and developed 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. Previously, at Persystems, I was a Junior C++ Developer, where I developed Virtual TestBench, a Qt Desktop application for simulations of electrical components, designed as a direct competitor to LabVIEW, 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 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 built a separate license check application for Virtual TestBench using Qt and C++.

Drawing from my Master's work where I developed AI-driven applications in Python and managed complex projects in C++ at AVL, alongside my previous role at Persystems refining simulation software, I am well-positioned to excel as a Junior LabVIEW Software Engineer at Rocket Factory Augsburg AG. My in-depth study of LabVIEW to incorporate its features into Virtual TestBench at Persystems, a direct competitor to LabVIEW, equips me with both practical usage and development expertise, aligning with your need for robust software for aerospace systems. My thesis work at AVL in the Software-in-the-Loop (SiL) department, upgrading the FMU Generation Utility for co-simulation of ADAS components, demonstrates my capability to handle real-time simulation environments critical for RFAs rocket systems. My proficiency in C++, Python, and Qt, combined with my experience in ROS, Yocto, and CI/CD pipelines using Azure DevOps, enables me to develop and validate high-quality software for the RFA ONE rocket, ensuring precision and scalability in mission-critical applications.

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