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Autonomous Teaming Solutions  
Schleißheimer Straße 91  
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Software Engineer – Tracking, Sensor Fusion & Autonomous Systems Application

Respected Hiring Team,

I am exhilarated to apply for the Software Engineer – Tracking, Sensor Fusion & Autonomous Systems position at Autonomous Teaming Solutions, a visionary force that captivated the 2024 European defense-tech conference with your scalable machine vision solutions for counter-UAS systems. Your pioneering approach to tackling asymmetric threats through cutting-edge technology sets a thrilling stage for innovation. I am eager to harness my embedded systems expertise to amplify Autonomous Teaming's mission of revolutionizing autonomous defense solutions.

During my Master's program, focusing on AI, I primarily used Python and Ubuntu to develop applications for AI-driven tasks. A key project involved autonomous navigation of the Turtlebot3, integrating multiple sensors—lidar, radar, and camera—for real-time object detection, avoidance, and SLAM-based mapping to ensure precise localization and homing. I implemented sensor fusion algorithms to combine data from these sensors, optimizing situational awareness in dynamic environments, using ROS (Noetic) and Gazebo with C++ and Python ROS nodes. I also managed a CI/CD pipeline for software testing and validation against KPIs, storing and analyzing data with MySQL. During nine months at AVL, I worked on Adaptive AUTOSAR middleware (Service-Oriented Architecture) and developed C++ applications deployed on a custom Real-Time Linux Operating System using Yocto. For my Master's thesis at AVL, I upgraded a legacy FMU Generation Utility (written in C++) from FMI 2.0 to FMI 3.0, enhancing co-simulation of automobile parts across systems like MATLAB and C++, leveraging Google Protocol Buffers through ASAM OSI for efficient data serialization in driving simulations. At Persystems, as a Junior C++ Developer, I developed Virtual TestBench, a Qt Desktop application for electrical component simulations, designing UI/UX in Qt Creator IDE and implementing logic with Qt's signal-slot mechanism to interface with Persystems' proprietary library. I also built a separate license check application using Qt and C++.

Drawing from my Master's work developing AI-driven applications with sensor fusion for Turtlebot3 using lidar, radar, and camera data, alongside my C++ projects at AVL and Persystems, I am primed to excel as a Software Engineer – Tracking, Sensor Fusion & Autonomous Systems at Autonomous Teaming Solutions. My experience integrating multi-sensor data for real-time navigation, implemented with ROS and C++ (11/14), equips me to develop robust tracking and state estimation algorithms for UAVs in GPS-denied environments. My proficiency in Python and mathematical modeling, including optimization techniques from my FMU thesis, aligns with your need for sensor fusion and localization using camera, radar, and lidar. Collaborative efforts at Persystems, working with hardware teams, and my ROS expertise ensure I can deliver end-to-end solutions across prototypes and production systems. My CI/CD pipeline experience and Git proficiency support Autonomous Teaming's mission to advance resilient, perception-driven autonomous systems.

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 07.07.2025. However, I remain open to discussing a starting date that best aligns with the team's needs.

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

Yours sincerely



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