Robotics Software Engineer

Availability: June 2018, Singapore
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Introduction

TUMCREATE is a leading research institute set up by the Technical University of Munich, Germany in collaboration with the Singapore Government. TUMCREATE has received funding and support for the SPEEDCARGO project from the Civil Aviation Authority of Singapore (CAAS) & the National Research Foundation (NRF) to develop automation solutions that will transform the air freight logistics sector. The SPEEDCARGO solution is the world's first AI-powered robotic solution for automatic build-up and break down of aviation cargo pallets and will help Singapore lead the transformation of the logistics industry globally. The project is seeking technical experts with a passion for creating world class products, and a willingness to work in a fast paced, quality obsessed, multi-cultural global environment. On successful completion, the project will spin-off as a start-up with members of the project team having the option to join the start-up with benefits that include attractive ESOPs. Apply now if you are interested in working on cutting edge technologies, changing the world with your work and joining a dynamic start-up team.

More details on the project:

https://www.speedcargo.sg/
Background

The design of real-world robotic systems is a multi-disciplinary effort. It involves the development of mechanical elements like sensors and actuators, electronic components for connecting and controlling the mechanical elements and software for higher-level planning and process control.

This job profile focuses on development of such robotics systems from the software perspective. The job will be within an emerging deep-tech startup working towards commercialization of SPEEDCARGO - world's first AI-powered robotic solution for automatic build-up and break down of aviation cargo pallets.

Objective & tasks

1. Development of robot motion planning software
2. Contribute to software architecture design and implementation of the entire turnkey systems
3. Development of state machines that define application logic and connect different high level and low-level parts of the system
4. Integration of several robotics and AI software modules using a middleware such as ROS.
5. Testing and validation at the application and system level

Mandatory Requirements

1. Since the project will focus on real world deployment of industrial robotics system we require the candidate to have minimum 2-5 years’ experience working on real world industrial robotics projects (preferable in Industry). Candidates with only lab/research experience won’t be considered.
2. PhD/Master/Bachelor Degree in Computer Science from a reputed university

What we expect from you

- Possess skills/ familiar with tools – C/C++, Python, Linux, git, Qt
- Knowledge of concepts in Computer Science and Mathematics applied to robotics
- Knowledge of motion planning concepts applied to industrial robots
- Proven experience with middleware such as ROS.
- Experience in hands-on robotics projects in one or more of the following areas: motion planning or control, state machines, physics engines
- Experience working with industrial robots is a plus.

What we offer you

- An international and multidisciplinary working environment
- Opportunity to work on deep-tech robotic system
- Challenging tasks with real-life relevance

PLEASE NOTE THAT ONLY SHORTLISTED CANDIDATES WILL BE CONTACTED