Tony Najjar
Robotics Software Engineer

I aim to be a key contributor to the robotics revolution. Bringing machines to life in a way that is useful for humans is my passion and is what robotics is about to me.

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📍 Munich, Germany

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WORK EXPERIENCE

Robotics Software Engineer
Pixel Robotics

09/2021 - Present   *Munich, Germany*

Achievements/Tasks

- Developing software for AMR over a wide range of the autonomy stack: navigation, localization, behavior, control, perception, drivers, tooling, simulation...
- Porting Non-ROS codebase to ROS2 (launch system, architecture, open-source contributions, etc...)
- Generate and lead larger technical refactoring with junior engineers

Robotics Deployer - Operations Engineer - Operation Center Lead
Magazino GmbH

08/2019 - 09/2021   *Munich, Germany*

Achievements/Tasks

- Establishing and leading Magazino's Operations Center for remotely monitoring and troubleshooting Magazino's robot fleet of 15+ robots over 3+ locations
- Deployment and integration of production-grade autonomous robots in unstructured environment
- Troubleshooting of failures over the whole autonomous robot stack: Reasoning, Navigation, Perception, Grasping

Robotics Software Engineer Intern
BMW - Logistics Robotics

07/2018 - 12/2018   *Munich, Germany*

Achievements/Tasks

- Developed a maintainable, modular and generic state machine for the automated palletizing of different box sizes. Tech stack: ROS, Python, SMACH, UR10 Sortbot.

Robotics Research Intern
CERN & Lebanese American University

06/2017 - 08/2017   *Geneva, Switzerland*
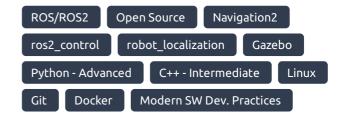
Achievements/Tasks

- Mechanically and electrically designed a magnetic field-resistant inspection mobile robot for the CMS cavern

EDUCATION

B.E. (Diplom) Mechatronics Engineering
Lebanese American University, Lebanon ☒

09/2014 - 05/2019   *CGPA: 3.65 (German System: 1.5)*

SKILLS

ROS/ROS2   Open Source   Navigation2
ros2_control   robot_localization   Gazebo
Python - Advanced   C++ - Intermediate   Linux
Git   Docker   Modern SW Dev. Practices

PROJECTS

Tricycle Controller ☒
- Created and contributed the mobile base tricycle controller to ros2_controllers

Navigation2 ☒
- Active open-source contributor to the navigation2 ROS2 project

ROS2 Open-source contributor
- Contributed to numerous ROS2 packages such as: STVL, costmap_converter, gazebo_ros2_control, rclpy, ros2_control, etc... ☒
- Contributed with issues to ROS2 packages ☒

Steady – RPi, Arduino, MATLAB ☒
- Self-balancing robot with double PID controller

AWARDS

Winner of CERN's International Webfest (2017) ☒

3rd in AUB's Build-It Hackathon (2016) ☒

3rd in Engineering Scholarship Competition, LAU (2014)

Winner of the CS Summer Institute, LAU (2013)

2nd in Google-sponsored CS4HS contest in UOB (2011) ☒

LANGUAGES

Language	Level
English	●●●●●
Arabic	●●●●●
French	●●●●○
German	●●●○○
Spanish	●○○○○