Robotics Engineer

JOSEF GSTOETTNER

Masters in Mechanical Engineering HKUST

INFO

Contact

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SKILLS

Areas of specialization

- ROS / ROS 2 for mobile robots
- Robot Simulations in Gazebo & Isaacsim
- Embedded software for ESP32, Arduino, STM32, NRF52
- CAD design in Fusion360 & Solidworks
- 3D printing
- CNC machining and laser cutting

Learning & Hobbies

- PCB design with KiCAD
- Game development in Godot
- Mandarin and Cantonese

Languages

English	fluenluent
Mandarin	conversational
Cantonese	basic
German	native

IT & programming

- python
- C / C++
- C#
- Matlab
- Docker
- html, css
- javascript

OS:

C++ and Python developer with experience in ROS. Makes robots navigate autonomously. Well rounded mechatronics engineer. Can work on software, mechanics and electronics.

Short Resumé

2022–2024 **System Engineer**
ROS Robotics · LSCM
Set up SLAM (cartographer, slamtoolbox, rtabmap) and NAV2 on autonomous mobile robots.
Developed motor drivers and autonomous docking in C++ and Python.
Experience with wide range of sensors (3D LiDAR, depth cameras, IMU, GPS, Sonar.).

2020–2022 **Research Assistant**
Embedded Software · HKUST
Developed a weight scale with RFID scanner for automated storage records in chemical Labs on Arduino MCU.
Firmware development on a low power IoT accelerometer with BLE Mesh for predictive maintenance based on Nrf52.

2019–2020 **Mechanical Engineer**
CAD design · KALBAS
Designed, 3D-printed and created tool-paths for CNC machining of fish lure prototypes.

Projects

2023 **Lingao ROS 2**
ROS 2 · Personal side Project
https://github.com/JosefGst/lingao_ros2
Build an autonomous mobile robot from scratch for outdoor environment.

2021–2022 **Red Bird Racing**
Autonomous Racing · HKUST
Cone detection with OpenCV and autonomous race car control-algorithm in ROS

2021–2022 **Robomaster**
Software team · HKUST
SLAM and navigation for autonomous Robot in ROS and embedded software development on STM32.

2020–2021 **Autonomous RC-car race (first place 🏆)**
Imitation Learning · HKUST
https://github.com/JosefGst/autorace
Trained Pytorch model on the Jetson Nano for autonomous-driving, obstacle avoidance and overtaking of other cars.