JOSEF GSTOETTNER

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https://github.com/JosefGst ◇ https://josefgst.github.io

Passionate about robotics, embedded systems and always keen to learn about new technologies.

SKILLS

- ROS, C++, Python, Docker, Matlab,
- Embedded software development on ESP32, Arduino, STM32, NRF52
- CAD design for 3D printing, laser cut and tool path generation for CNC machining in Fusion 360

LAGUANGES

- German (native), English (fluent), Chinese Mandarin (intermediate)

EDUCATION

HKUST Master in Mechanical Engineering *May 2019*

EXPERIENCE

Full time Parent September 2024 - Present

- Perhaps the hardest job in the world.

LSCM — Robotic Engineer, ROS April 2022 - August 2024

- Set up SLAM (cartographer, slamtoolbox, rtabmap) and **navigation** on ROS/ROS 2 robots.
- Developed motor drivers and autonomous docking in C++ and Python.
- Experience with wide range of sensors (3D LiDAR, depth cameras, IMU, GPS, Sonar).

HKUST — Research Assistant, Embedded Software July 2020 - March 2022

- Developed a weight scale with RFID scanner for automated storage records in chemical Labs on Arduino MCU.
- CAD design for 3D print and laser cut of the prototypes.
- Worked on a low power IoT accelerometer with BLE Mesh for predictive maintenance.

KALBAS — CAD Designer, Product development August 2019 - May 2020

- Designed, 3D-printed and created tool-paths for CNC machining of fish lure prototypes.

PROJECTS

Lingao ROS 2; Private Side Project August 2023

- Convert the existing ROS 1 codebase to ROS 2 of the Lingao robot.
- Add outdoor navigation with GPS.

Red Bird Racing; Autonomous Racing Team; HKUST November 2021 - April 2022

- Cone detection with OpenCV and autonomous race car control-algorithm in ROS.

Robomaster; Software team; HKUST October 2021 - April 2022

- SLAM for autonomous Robot in ROS and embedded software development on STM32.

Autonomous RC-car challenge (first place); HKUST December 2020 - March 2021

- Trained Pytorch model on the Jetson Nano for autonomous-driving, obstacle avoidance and overtaking other cars.