# **JOSEF GSTOETTNER**

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Robotic engineer who is passionate about leveraging technology to solve problems and make robots come to life.

#### **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**

The Hong Kong University of Science and Technology, Master in Mechanical Engineering

May 2019

#### **EXPERIENCE**

**Full time Parent** 

September 2024 - Present

· Perhaps the hardest job in the world.

## Logistics and Supply Chain MultiTech R&D Centre — Robotic Engineer

April 2022 - August 2024

- · Developed motor drivers and for ROS robots in C++ and Python.
- · Integrated sensors like, Lidar, IMU, depth Cam and RGB cameras for navigation and mapping.
- · Created simple GUI's for delivery robots.

## 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

August 2023 - need to be continued

- · 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

 $\cdot$  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.