

# GILBERT TANNER

✉ [gilberttanner.contact@gmail.com](mailto:gilberttanner.contact@gmail.com)

🌐 [linkedin.com/in/gilbert-tanner/](https://www.linkedin.com/in/gilbert-tanner/)

🐙 [github.com/TannerGilbert](https://github.com/TannerGilbert)

## Education

---

**M.Sc. Robotics, Systems and Control**

*ETH Zürich*

Sep. 2025 – Sep. 2027

*Zürich, Switzerland*

**B.Sc. Robotics and Artificial Intelligence**

*University of Klagenfurt*

Oct. 2022 – Sep. 2025

*Klagenfurt, Austria*

## Experience

---

**University of Klagenfurt, CNS (Control of Networked Systems)**

*Student Employee*

Feb. 2024 – Aug. 2025

*Klagenfurt, Austria*

- Working on the SAPIENCE (Sense & Avoid - a cooPeratIvE droNe CompEtition) project, supported by NATO's Science for Peace and Security Program, aimed at advancing autonomous drone systems for search and rescue missions in GPS-denied environments.
- Developing 3D LiDAR-based SLAM algorithms for featureless indoor environments.
- Setting up drone simulations for testing SLAM algorithms and autonomous exploration in ROS.
- Managing the integration of all system components, ensuring seamless communication between hardware, sensors, and ROS frameworks to enable full system functionality.
- Collaborative SLAM (CSLAM) to enable multiple drones to map large areas while maintaining a global coordinate frame for effective teamwork.

**Dynatrace**

*Software engineer*

Aug. 2021 – Oct. 2024

*Klagenfurt, Austria*

- Developing a cloud-native lifecycle orchestration tool and Dynatrace 3rd gen ecosystem integrations.
- Keptn: Automated remediation and continuous delivery for cloud-native applications
- Site Reliability Guardian: Ensuring reliability standards through automated checks and compliance in cloud environments.

**Asfinag**

*Electrical engineer*

May 2022 – Dec. 2022

*Klagenfurt, Austria*

- Designed and implemented embedded control electronics and firmware for the HASCY – HTLs Asfinag Safety CAT, an autonomous rail-mounted sledge that can navigate on the ceilings of tunnels and is used for safety monitoring.
- Built a web-based control interface enabling remote operation via position- and velocity-based inputs and integrated live video streams from thermal and PTZ cameras.
- Conducting system testing and validation under real operational conditions to ensure robustness, safety, and reliable performance.

## Publications

---

**Adaptive Multi-Sensor Fusion with Online Failure Detection and Dynamic Sensor Switching for Fault Tolerant Robot Localization**

- Coupling of EKF-based state estimation with a context-aware hybrid autonomy for proactive, semantic-driven sensor switching and re-initialization.
- Currently in review at IEEE Access

## Awards

---

**1st place: SAPIENCE competition 2**

Jul. 2025

- Outdoor search & rescue multi-drone competition.

**2nd place: SAPIENCE competition 1**

Aug. 2024

- Indoor search & rescue with multiple drones. In a mock-up of a building hit by disaster, the drones had to map the disaster site, identify individuals in need of help, and deliver aid.

**1st place: KFV Forschungspreis 2022 Category "Höhere berufsbildende Schulen"**

Oct. 2022

**1st place: AUTstanding 2022 Awarding institution**

May. 2022

**1st place: TÜV Austria Wissenschaftspreis 2021 Category "HTL-Abschlussarbeiten"**

Nov. 2021

**1st place: Innovation@school**

Jul. 2021

**1st place: Jugend Innovative 2021 Category "Engineering I"**

Jun. 2021

**1st place: Bosch Technik fürs Leben-Preis 2021 Category "Mobility Solutions"**

Apr. 2021