



PANITHI THUNGKAO

PROFILE

Master's student in Mechatronics Engineering at FH Aachen with a strong interest in robotics, AI, industrial automation, and project management. Keen on applying systems engineering principles following the V-model. Familiar with SysML and experienced in interdisciplinary development workflows.

EDUCATION

- **FH-Aachen, Germany** 2024 - PRESENT
Master in Mechatronics Engineering
 - **Project Robotics**—Object-Tag Mapping in a Simulated Warehouse with ROS2
 - **Project Industrial Communication**—Integrating/debugging sensors using protocols like Modbus, CAN, and IO-Link—following OSI-ISO model
 - **Project Mechatronic Systems**—Automation of Go-Cart partnering with ifm
 - Integrated ifm Safety PLC (CR701S), Joystick (CR1301), BOSCH BLDC Motor with CODESYS. Designed the electric driving system, ensuring cost-effectiveness and budget compliance—following the V-model (VDI/VDE 2206) aimed to comply with EU Normatives.
 - **Tutor** for ROS Summer School
- **Hochschule Rhein-Waal, Germany** 2019 - 2023
Bachelor in Mechatronic Systems Engineering
 - **Project: Autonomous Cleaning Mobile Robot**: led a team. The project was selected for publication.
 - **Bachelor Thesis**: designed a solution for 3D-printed violin with the goal to minimize cost to quality (FDM, Low Force Stereolithography)

WORK EXPERIENCE

- **Fiverr (Freelance)** 2024 - PRESENT
Mechatronic Systems Engineer
 - Designing product: CAD models, BOM, and technical documentation.
 - Robotic Simulation with ROS2
- **Outlier AI** 2024 - PRESENT
AI Training Conductor - Mathematic
- **Rocket Factory AG, Augsburg, Germany** 2022 - 2023
Mechatronics and Hardware Electronics Intern
 - Developed testing equipment and methods for battery modules designed as main power for electronics in rocket stages, improving testing efficiency.
 - Prototyped using Raise3D N2+ 3D-printer and assisted in CAD modeling and assembly of Li-ion battery modules.
- **FH Aachen, Jülich** 2018- 2019
Engineering Intern
 - Conducted metalworking, woodworking and mechanical assembly.
 - Conducted electrical hardware testing and circuit design.
 - Technical programming in python, HTML, CSS, JavaScript

CONTACT

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🌐 [Portforlio](#) | [LinkedIn](#)

SKILLS

- Robotics: ROS2, YOLO
- Industrial Communication: Modbus, CAN, IO-Link
- SysML
- Industrial Automation & Control
- Prototyping: FDM, SLA
- Project Management

PROGRAMMING

- C/C++
- Python
- ST
- MATLAB

SOFTWARE

- Arduino, VS Code
- Linux (Ubuntu)
- CODESYS, TIA portal
- Solidworks, Inventor, AutoCAD, NX, Fusion

LANGUAGES

- German (B1)
- English (Fluent)
- Thai (Native)

HOBBIES

- Reading
- Fitness, tennis, badminton
- Guitar