

FLORIAN ZACHS | CURRICULUM VITAE

- » **Name:** Florian Zachs
- » **Birth date:** 15.11.2002
- » **Address:** Königsberg 98, 2842 Thomasberg
- » **Portfolio:** [Link to GitHub](#) | [Link to LinkedIn](#)
- » **Contact:** zachs.florian@gmail.com | +4369981159720
- » **Summary:** All-rounder in robot technology
(Mechanical, Electronics & Programming)



»» Professional experience

08/22-07/23	Reet Systems GmbH	Location Mödling/AT
	<ul style="list-style-type: none">» 10/22 to 07/23 Part-Time during Civil Service<ul style="list-style-type: none">» Responsible for UI/UX Design of the Beckhoff HMI» Planning and development of the industrial user interface» As well as optical refinements using Javascript, HTML and CSS» 08/22 to 09/22 Commissioning Engineer Full-Time<ul style="list-style-type: none">» Complex procedure programming in ST with Beckhoff TwinCAT 3» Commissioning of prototypes, troubleshooting and bug fixing» Planning, assembly and running of testing facilities	
10/22-06/23	Paramedic	Location Aspang/AT
	<ul style="list-style-type: none">» Civil Service at SMD Rettungsdienst (Medical Service/Ambulance)	
08/21	Internship at IGM Robotersysteme AG	Location Mödling/AT
	<ul style="list-style-type: none">» Maintenance of welding robots at IGM's customers (Austria-wide)» Participation in 7-day operator training with IGM welding robots	
08/20	Internship at Cosma Engineering (MAGNA)	Location Weikersdorf/AT
	<ul style="list-style-type: none">» Equipping of welding robot jigs for vehicle prototype manufacturing» Post-processing of welded aluminium parts	
08/19	Internship at Constantia Patz GmbH	Location Loipersbach/AT
	<ul style="list-style-type: none">» Maintenance of production machines in the pharma industry	

»» Education

seit 2023	University of Technology Graz	Bachelor
	<ul style="list-style-type: none">» Field of study: Digital Engineering since WS 2023	

- » Homepage: <https://robo4you.at>
- » Planning, assembly and programming of mobile autonomous robots
 - » Technologies: Raspberry Pi, Linux, C++
- » Participation in international robotics competitions as Team qbit:
 - » 1. Place Seeding and 2. Overall - World championship/GCER 2022 in Oklahoma/USA
 - » 1. Place Seeding and 1. Overall - Euro-championship/ECER 2022 in Bratislava/SVK
 - » 1. Place DE and 2. Overall - Euro-championship/ECER 2019 in Vienna/AT
- » Diploma Thesis developed for robo4you

- » High School Diploma 2022 with excellent success
- » CREO Parametric 5 & 7, CATIA V5, Beckhoff TwinCAT 3
- » Diploma Thesis FLAME: Originally written in English
 - » Link to Online-View | Link to Banner
 - » 4-axis Robotic arm as an extension for the Festo Robotino
 - » Ethernet-Interface and self-developed Arduino-Firmware in C++
 - » Prototype was engineered, assembled, tested and presented

»» Publications

- » Presented at ECER and GCER 2022 (Please refer to Robotics Club robo4you)
- » Link to Online-View

- » Presented at ECER 2019 (Please refer to Robotics Club robo4you)
- » Link to Online-View

»» Expertise and Interests

Modern software development

- » Very advanced knowledge of C++ by more than 7 years of practical experience
 - » Both in terms of modern Standard Library Features (C++17 and above)
 - » As well as Low-Level or Embedded Programming, or Memory Management
 - » As a result, equally in-depth expertise about modern CMake (CMake 3.16+)
 - » Please refer to the GitHub Portfolio for hobby project examples
- » General-Purpose Tools for modern software development:
 - » CMake, git, GitHub DevOps, Markdown/Doxygen, Batch, bash, LaTeX
 - » Advanced knowledge of JavaScript/TypeScript in relation to Node.js/Electron.js
 - » Basic knowledge of Python and Rust
 - » Great Appreciation for user-friendliness and clean code

PLC-Programming with Beckhoff

- » Advanced skills in ST with Beckhoff TwinCAT 3
- » In-depth skills in the Beckhoff HMI workspace

Embedded Software

- » In-depth skills in Arduino, STM32 and Raspberry PI programming

Mechanical Engineering/CAD/CAM

- » In-depth skills in mechanical construction and mechanical drawings
- » Advanced skills with Creo Parametric and Autodesk Fusion 360
- » Basic knowledge of Solidworks CAM and Catia V5

Electronics

- » Solid base knowledge of electronics and electronic circuits

Operating systems

- » In-depth skills with Windows and Linux operating systems
- » As well as Embedded Linux skills based on Raspberry PI

»»» Miscellaneous

Certificates

- » Participation at Beckhoff Summer School (Advanced)
- » PLC-Programming in the area of Control Theory

Licenses

- » Drivers licenses B and F
- » Forklift drivers license
- » Crane operating license for floor-controlled cranes up to 300kN

Languages

- » German (Mother language)
- » English (fluent)

»»» Final words

The majority of my skills are self-taught by hobby projects, school was minor in comparison. I study Digital Engineering at TU Graz since WS2023, in order to solidify my knowledge.

I am very interested in industrial robotics, both regarding the mechanical and electrical side, as well as the software. When programming, I am especially interested in Control Theory and any software that is used to run a robot (from the motor controller all the way to the user interface). I have great appreciation for a clean working strategy and an uncomplicated user experience.

Thank you for your interest in my background!

Yours sincerely,
Florian Zachs

Oct 31, 2023