

Maximilian Karl Kurz

Born April 22, 2000, in Neuss, Germany
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EDUCATION

- | | |
|-------------------|---|
| 10/2019 – Present | B.Sc. Industrial Engineering specializing in Mechanical Engineering
<i>RWTH Aachen University</i> |
| 06/2010 – 08/2019 | High School Diploma (Abitur) Pascal Gymnasium Grevenbroich <i>German GPA: 2.4</i> |

WORK EXPERIENCE

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|-------------------|---|
| 08/2019 – Present | Associate in Metal Construction at Metallbau Kurz, <i>Grevenbroich</i> <ul style="list-style-type: none">General metal construction and installation of fire barriers, electronic door closers, and escape route systems (acc. to DIN 179, DIN 1125, DIN 14447)Systematic documentation of annual maintenance for fire protection systemsDigitized and optimized administrative workflows and annual maintenance protocols for fire protection systems using Lean Six Sigma (DMAIC) methodologies and systematic time measurements |
| 07/2019 – 08/2019 | Summer Internship at Hydro Aluminium Rolled Products, <i>Grevenbroich</i> <ul style="list-style-type: none">Warehouse Logistics: Conducted inventory audits of 12-ton aluminum coils and managed relocation processes via visual markingTechnical drawing and documentation support |
| 11/2017 – 09/2018 | Part-time Logistics Assistant Gordon and Bros GmbH, <i>Grevenbroich</i> |

SKILLS AND QUALIFICATIONS

Programming Languages

- | | |
|---------------------|--------|
| Intermediate | Python |
| Basic | MATLAB |
| Beginner | C++ |

Software & Tools

- | | |
|---------------------|--|
| Advanced | Siemens NX |
| Intermediate | MS Office, Minitab, Siemens Solid Edge |
| Basic | LaTeX, Linux (Ubuntu), Ansys |

Languages

- | | |
|-----------------|---------|
| Native | German |
| Fluent | English |
| Beginner | Russian |

INDEPENDENT PROJECTS

UAV Aerodynamics	UAV Aerodynamics Simulation Conducted advanced CFD simulations on a 3.5m UAV model utilizing Ansys Fluent. Applied theoretical fluid dynamics, solving Navier-Stokes and differential equations to validate aerodynamic behaviors.
Project SELENE	Orbital Mechanics & Robotics Simulation Developed mathematical models in a Jupyter Notebook for delta-v orbital calculations and robotic arm kinematics. Formulated and numerically solved kinetic/kinematics equations to determine joint torques and power requirements.

CERTIFICATES

Lean Six Sigma	Green Belt Diploma (Theory Course) – ESTIEM
Safety Tech	Certified Specialist for Hold-open Systems (acc. to DIN 14677)
Methodology	McKinsey Forward Program (Completed: 06/2026, Certificate pending)
Intercultural	Participation in Intercultural Training – RWTH

ACADEMIC COURSES & LABS

Aerodynamics	Delta Wing Configuration Voluntary Aerodynamic Wind Tunnel Laboratory Course – Analyzed flow phenomena, lift, drag, and surface pressure distributions to validate aerodynamic concepts.
Flight Mechanics	Flight Test Laboratory Voluntary Airborne Data Acquisition & Performance Evaluation Course – Processed flight log telemetry data to match real flight dynamics with theoretical models.
Simulation	Introduction to MATLAB (Voluntary University Course, Expected Completion: 09/2026)
Simulation	Simulation with MATLAB & Simulink (Voluntary Course, Expected Completion: 09/2026)

MEMBERSHIPS & VOLUNTEERING

VWI	Member of the Association of German Industrial Engineers
DGLR	Student Member of the German Society of Aeronautics and Astronautics
RWTH	Local Mentor for International Summer School Students Mentored international participants with city navigation, daily routines, and campus integration.