Mechanical Design Engineer, *Horyzn (TUM Student Club)*

- **Project**: Designing and building the landing gear for a manned rescue drone (~400 kg) for the GoAERO competition hosted by Boeing, NASA and RTX. Report: "Design and Analysis of a multipurpose Landing Gear System for HORYZON's UAV for the GoAero Competition" (attached in folder).
- **Skills Gained**: Writing technical requirements, researching industry standards and performing CAD and FEM modeling (Solidworks, Catia V5, Hypermesh/Optistruct).

University Course: Aerospace Structures and Elements, *Technical University of Munich (TUM)*

- **(Supplemental) Project**: Developed a Python code to evaluate the optimal stacking sequence for a composite skin section, maximizing structural stability based on fiber orientation and ply position (attached in folder).
- **Skills Gained**: FEM modeling (Hypermesh/Optistruct), data evaluation in Excel, structural mechanics theory, Python programming, composite material properties, failure mode analysis.

Working Student, *MTU AeroEngines, Munich, Germany*

- **Project**: Developed a voting/selection tool for an internal employee event (~200 participants).
- **Skills Gained**: Microsoft Excel VBA programming.

Pre-Study Internship, *teamtechnik, Freiberg am Neckar, Germany*

- **Project**: Manufactured a model TV tower and an assembly vice. [figure 1 and 2 below]
- **Skills Gained**: Welding, drilling, turning, milling, tempering, insight into metal properties.

Other relevant practical courses at TU Munich:

- "Practical course: Finite element method in aerospace engineering" (Hypermesh, Optistruct)
- "Practical course: Numerical flow simulation" (Ansys CFD)
- CAD and technical drawing (Solidworks)
- Computational foundations (C++)

Figure 1

Figure 2