



# Tommy Umbreit

Graduate Engineer, Borned in 1984, Married, 2 Sons, 14.25 years of professional experience

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# LANGUAGES

German Native English Fluent

#### IT & Software Skills

- Operating Systems (Linux, Windows)
- Visualization Tools (MS Office, Python Streamlit, Tableau)
- Analysis & Automation
   Software (MATLAB, Squish
   GUI Testing, Diadem)
- Data Science Frameworks (Matplotlib, Streamlit, Sklearn)
- Programming (Python, SQL, bash, Batch)
- Collaboration and Revisioning (<u>Github</u>, Gitlab, Git)
- PLM Software (Polarion, onePLM)
- CAD/CAE/FEM Tools
   (Creo/ProE, Ansa, Abaqus,
   LS-Dyna, Ansys, Animator,
   Hyperworks, Meta,
   Optimus, LS-Opt)

# **KEY Projects**

# **Additional Training**

DATA SCIENCE. INSTITUTE by Fabian Rappert | 12.2024 – 05.2025

- Data Visualization and Business Intelligence
- SQL Databases (advanced techniques and projects)
- Python Programming (Webscraping, API development, Object-Oriented Programming)
- Machine Learning (Supervised & Unsupervised Learning, Practical ML Projects)
- Agile Methods (Scrum), Git/GitHub, Docker, Statistics

# **Test Engineer**

*OEM medical field* | *09.2018 – 05.2025* 

- Hardware & Software Testing, Automation using Linux scripting and Squish GUI Testing in Python environment
- Test Data Analysis with MATLAB
- Requirment verification and FDA-compliant documentation
- International team stacked with US, Indian and German colleagues

#### **CAE/FEM Specialist**

OEM automotive | 02.2022 - 06.2022

- Validation and adjustment of full vehicle crash models based on sensor data
- International team stacked with Chinese and German colleagues

#### **EDUCATION**

Diploma in Industrial Engineering / Mechanical Engineering University of Applied Sciences Kempten 10.2005 – 01.2011

#### ADDITIONAL TRAININGS

Data Science (2024–2025)
MATLAB Simulink for Automotive
Applications (2015)
Various CAE and Project
Management Training Courses
(2011–2015)

#### INTERNATIONAL EXPERIENCE

One trimester of study at International Collage of Management (ICMS) in Sydney Australia as part of degree program

#### **VOLUNTARY WORK**

Workgroup Kids and Youth
Deutsche Initiative Mountainbike
aka DIMB
02.2022 – present
Kids technic training
Kids rides
Kids events

#### **Test Engineer**

*OEM medical field* | 09.2019 – 02.2021

- Design and implementation of environmental test setups for requirment testing of prototypes
- Coordination of testing activities internally
- Evaluation of test results in Diadem
- Requirement verification and MDR-compliant documentation

# **Task Force Engineer**

Porsche AG project for Tier1 supplier | 09.2019 – 02.2020

 Quality improvement measures and RFT quota optimization of kinematic car components

# **Verification and CAE Engineer**

Porsche AG project for Tier1 supplier | 02.2016 - 02.2019

- Writing design verification plans (DVP) based on requirements
- Managing service providers for testing and CAE
- Development and validation of kinematic car components under environmental conditions
- International team stacked with French, Slovak and German colleagues

# **Verification Coordinator**

BMW AG project for Tier1 supplier | 03.2017 - 04.2018

- Development of design verification plans (DVP)
- Coordination of tests
- International team stacked with US and German colleagues

#### **CAE Simulation Engineer**

Daimler AG project for Tier1 supplier | 03.2013 – 12.2015

- Development of side crash simulations for door panels
- Automation of CAE post-processing
- Building material data libraries
- International team stacked with Japanese and German colleagues

#### **CAE Specialist**

*Tecosim* | 01.2011 – 03.2013

- Full vehicle crash simulations for BMW
- Automation and optimization of simulation and verification processes

Lauf, 3rd June 2025