JANNES SCHMUNKAMP

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Summary

M.Sc. Mechanical Engineer, Certified Electrician and Certified Solidworks Professional. Experience in R&D testing and contractor design engineering. Educated in Germany and Netherlands, with abroad experience from New Delhi, India. Currently employed and living in Switzerland Aarau/Lenzburg. Unique mechanical and electrical education + extensive hands-on experience from construction sites and a Formula Student team.

Experience

Helbling Technik, Switzerland   09/2023 – today
Development Engineer
- Develop mechanical refit solutions for older trains, ensuring sustained efficiency for extended service life
- Utilize CAD software to create sheet metal designs, emphasizing of manufacturing and functionality
- Create technical drawings for manufacturing, prioritizing clear readability and correct GD&T
- Mechanical integration of new electronic parts in an existing rack and lead of weekly Jour Fixe rounds
- Technical Project lead of a kitchen renovation project with the goal to replace all non-stainless-steel fittings
- Working on poorly documented systems, designing solutions that seamlessly integrate and add functionality
- Planning and execution of site visits for information gathering or project execution
- Data analysis and concept planning for obsolescence management
- Successful self initiative in customer acquisition, resulting in a potential long term cooperation
- Complete project ahead of schedule by good time and work management, giving a 15% reduction in total estimated project hours

Kalkhoff Bikes, Germany   02/2023 – 08/2023
Pilot Project Lead (6 months contract)
- Lead pilot project focused on large SolidWorks CAD assemblies within the engineering team
- Planed, organized, and documented ongoing project, coordinating cross-functional stakeholders
- Attained and modified 3D CAD parts in SolidWorks, ensuring high-quality and precise assemblies in SolidWorks PDM

Philips, The Netherlands   09/2021 – 08/2022
R&D Sheet Metal FEA, Internship and Thesis
- Developed a measurement script, enabling autonomous measuring and saving 100 manual labor hours
- Created and validated FEM models to simulate metal forming process with accurate boundary conditions
- Boosted efficiency and accuracy by independently developing a pattern detection algorithm, enabling analysis of 700 measurements in seconds with precision

Volkswagen Commercial Vehicles, Germany   11/2019 – 04/2020
Quality Assurance, Working Student
- Initiated a new packaging solution to suppliers, saving over 10,000 parts from scrapping
- Effectively categorized and documented defects, ensuring accurate and comprehensive records
- Worked closely with suppliers and assembly line employees to promptly identify and address defects

Clarios, Germany   01/2019 – 07/2019
R&D Battery Testing Lab, Internship
- Successfully developed a validation script for WLTP test analysis, reducing analysis time by over 95%
- Established consistent testing procedures, ensuring comparable results and improving overall efficiency
- Created an experiment event marker eliminating excessive handover from tester to analyzer

Formula Student - Student Project

HorsePower Hanover, Germany   08/2017 – 09/2019
Electrical and Mechanical Engineer
- Mentored new members on PCB design & prototyping, increasing team integration & productivity
- In compliance with regulations, designed components double fail-safe for competition clearance
- Design of UV 3D printed PCB housing via CAD, resulting in efficient part assembly and handling
- Independently managed the end-to-end design process, from prototyping, cable management to troubleshooting, for PCB projects using Altium and Autodesk Inventor for ECAD and MCAD

Education

University of Groningen, The Netherlands   09/2020 – 08/2022
M.Sc. Mechanical Engineering – Smart Factories (Dutch: 8.2, Honors Level, Scholarship)
- Focus: FEM, Robotics, Systems Engineering, Data Science & Machine Learning, Optimization
- Thesis: Stress reset in metal forming simulations with localization of impactful stress areas
- Studied fully in English

Leibniz University Hanover, Germany   10/2016 – 06/2020
B.Sc. Mechanical Engineering (German: 2.4)
- Semester abroad: IIT Delhi in India
- Focus: Material Science, GD&T, Technical Mechanics, Automatic Control Engineering (best grade)
- Thesis: Electrochemical characterization of different Membrane Electrode Assemblies in a spatially derived Proton Exchange Membrane (PEM) Water Electrolysis Cell

Hermes Systeme, Germany   08/2014 – 06/2016
Licensed Electrician for Automation (completed, short cut by good grades)
- Wiring and installation of control cabinets and field sensors for industrial costumers
- Control of air conditioning units for large buildings like hospitals or manufacturing facilities
- Assembly work on construction sides further away from the company for up to one week

Gymnasium Antonianum, Germany   08/2008 – 06/2014
Abitur

Additional

Mechanical Software: Solidworks (Certified Professional), Inventor, PDM, AutoCAD, MSC Marc
Electrical Software: Altium
Other Software / Programming Languages: Excel VBA, Python, MATLAB
Languages: German (Native), English (C2), Arabic (Total Beginner)
Hobbies: Gardening, Bike Repairs, Hiking, Skiing, Skydiving
Volunteer: Village Youth Head, Refugee Food Supply, Bike Repair, Foodbank Gardening, Ministrant, Judo Coach
Certificates: Solidworks CSWP – Mechanical Design