Lukas Klostermair

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Education

Since 04/2024 **Technical University of Munich** **Munich, DE**
M. Sc. Biomedical Engineering and Medical Physics
- Specializing in Deep Learning and Robotics
- Current GPA: 1.7/1.0 (Current Ranking Top 12%)

09/2019 – 11/2023 **University of Applied Sciences Regensburg** **Regensburg, DE**
B. Sc. Biomedical Engineering
- Specializing in Machine Learning and Dynamics
- GPA: 1.8/1.0 (Top 20% "cum laude")

01/2022 – 07/2022 **Universidad EAN** **Bogotá, CO**
Semester abroad; classes in Chemistry, Finance, and Project Management
- GPA: 4.0/4.0

09/2010 – 07/2018 **Schyren Gymnasium Pfaffenhofen** **Pfaffenhofen, DE**
Secondary Education with a focus on natural sciences
- GPA: 2.2/1.0

09/2006 – 07/2008 **Christ Church Episcopal School** **Greenville, US**

Professional Experience

Since 12/2024 **Baind AG** **Munich, DE**
Student Machine Learning Engineer (Part Time), AI Engineering
- Built and maintained machine learning data pipelines utilizing Google Protocol Buffers, Docker and Kubeflow Pipelines
- Optimized computational efficiency of two machine learning models by 40% each
- Assisted in the design and implementation of a scalable, constraint-based reinforcement learning gym environment, enabling horizontally scalable energy optimization for building energy management systems

09/2024 – 12/2024 **Intelligent Neuroprosthetics and Human Robotics Lab** **Munich, DE**
Student Researcher (Part Time); Prof. Cristina Piazza
- Designed and built hand prosthesis socket with modular control strategies
- Developed semi-autonomous dexterous grasping with object recognition as tutor in the course *"New Technologies in Neurorehabilitation and Motor Learning"*

03/2023 – 11/2023 **F. Hoffmann La Roche AG** **Basel, CH**
Student Researcher (Full Time); Engineering, Science and Technology (ES&T)
- Bachelor thesis topic *"Enhanced Validation Strategies for Depyrogenation Tunnels: A Case Study at Roche Switzerland"*
- Developed new validation strategy based on predictive model through data monitoring, reducing validation down time by 60%

09/2022 – 02/2023 **Syskron GmbH / Krones AG** **Regensburg, DE**
Student Project Manager (Part Time); Research and Development
- Assembled financial models for budget forecasts regarding over 20 projects
- Participated in yearly budget planning with Controlling and C-levels
- Remodeled and standardized budgeting input template for DACH R&D Department

09/2021 – 02/2022 **BMW AG** **Munich/Regensburg, DE**
Innovation Intern (Full Time); Quality and Innovation
- Operated over 5 TB of data for Machine Learning project with IT Consulting firm
- Coded Micro-IT Solutions in MS PowerApps for Germany-wide rollout

03/2021 – 08/2021 **University of Applied Sciences Regensburg** **Regensburg, DE**
Teaching Assistant (Part Time); Technical Mechanics III – Dynamics

02/2020 – 09/2021 **Ilmtalkliniken GmbH** **Pfaffenhofen, DE**
01/2019 – 05/2019 *Intern* (Full Time) and *Working Student* (Part Time); Nursing and Functional Medicine

Projects & Extracurricular Activities

03/2025 ***TinkerHand*** **– robo.innovate Hackathon –** ***Team Member***
- Developed Robotic assistant capable of reacting to speech based on the SO-100
- Built speech2text pipeline that selects ACT policies through keyword recognition

10/2024 – 02/2025 **Generative Classifiers in Tactile Classification – Advanced Deep Learning in Robotics, German Aerospace Center (DLR) –** ***Project Member*** **[Github]**
- Evaluated Invertible Neural Network with Generative Classifier as trustworthy alternative for robotic tactile classification task
- Conducted ablation study to optimize state-of-the-art architecture TactNet-II

04/2024 – 10/2024 **TUM Green Tech Initiative –** ***Co-Founder & Board Member***
- Led Technical Team of subgroup "Artificial Photosynthesis" (10+ members)
- Organized and managed meetings and workshops
- Represented Team and TUM Green Tech to external companies

01/2024 – 12/2024 **DIY 3D-printed Robotic Hand with Radio-controlled Interface Glove [Github]**
- Developed a robotic hand with a remote-control glove and material cost below 150 €
- Managed project with multiple iteration rounds and structured development approach
- Designed parts in CAD, circuitry in Fritzing, and programmed Arduinos

11/2023 – 02/2024 **Robotic Arm – HackaHealth at ETH Zürich –** ***Project Member*** **[Github]**
- Developed adaptive robotic arm prototype for quadriplegic patient
- Designed parts & mechanical concept of prototype
- Reiterated 3 times with ETH funding to develop personalized prototype

03/2023 – 11/2023 **Engineering, Science and Technology (ES&T) Squad Roche –** ***Board Member***
- Assisted in department-wide workshop involving over 120 employees
- Led the onboarding of new interns in the ES&T department

Skills & Interests

Tools Microsoft Office, MATLAB, CAD (CATIAV5, Fusion360, Solidworks), Python, C++
Languages English (Native), German (Native), Spanish (Intermediate)
Scholarships TU Munich Germany Scholarship (2024), Josef Stangelmeier Scholarship (2022), PROMOS (2022)
Interests/Hobbies 3D-printing, Guitarist, Surfing, Soccer player, Skiing