Steffen ███ ███ Illium

Machine Learning Expert
Data Scientist

- 📅 ██████████
- 📍 ██████████
- 📞 ██████████
- @ steffen.illium@ifi.lmu.de
- 🌐 steffenillium.de
- in steffen-illium
- ○ illiumst

Fields of research

Machine Learning & Data Science

Anomaly Detection & OOD

RL & Multi-Agent Systems

Geoinformatics & Gen. Algorithms
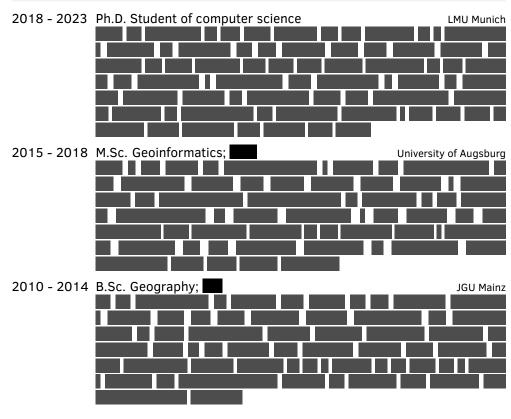
Scale: 0 (basic skills) - 6 (expert)

Softskills

Independent, Structured, Ready to learn, Self-reflective, Team player, quick comprehension, Organizational skills, Leadership skills, Curious, Innovative, Able to resolve conflicts
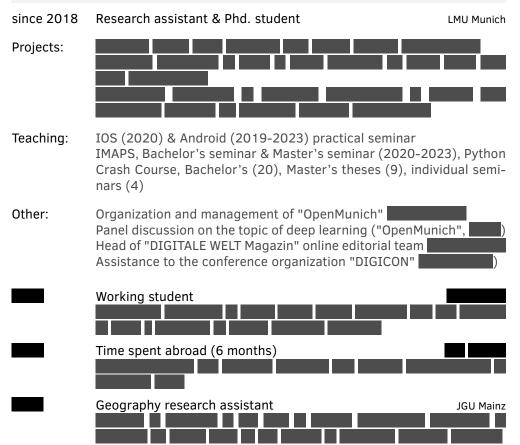
Resume

Being employed as a research assistant at the Ludwig Maximilian University of Munich allowed me to incorporate my personal interests, curiosity, and thirst for knowledge into a professional endeavor. You will find detailed information regarding my professional and personal experiences to date, which I have outlined below.

Education

2018 - 2023	Ph.D. Student of computer science	LMU Munich
2015 - 2018	M.Sc. Geoinformatics; ██	University of Augsburg
2010 - 2014	B.Sc. Geography; ██	JGU Mainz

Professional experience and roles

since 2018	Research assistant & Phd. student	LMU Munich

Projects: ██████████████████████████████

Teaching: IOS (2020) & Android (2019-2023) practical seminar IMAPS, Bachelor's seminar & Master's seminar (2020-2023), Python Crash Course, Bachelor's (20), Master's theses (9), individual seminars (4)

Other: Organization and management of "OpenMunich" ████
Panel discussion on the topic of deep learning ("OpenMunich", ████)
Head of "DIGITALE WELT Magazin" online editorial team ████
Assistance to the conference organization "DIGICON" ████)

████	Working student	████

██████████████████████████████

████	Time spent abroad (6 months)	████

██████████████████████████████

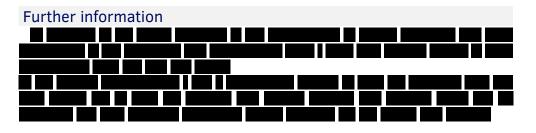|		
████	Geography research assistant	JGU Mainz

██████████████████████████████

Publications

2024
Aquarium: A Comprehensive Framework for Exploring Predator-Prey Dynamics through Multi-Agent Reinforcement Learning Algorithms

2023
Improving Primate Sounds Classification Using Binary Presorting for Deep Learning
VoronoiPatches: Evaluating a New Data Augmentation Method
Social Neural Network Soups with Surprise Minimization
Compression of GPS Trajectories using Autoencoders

2022
Empirical Analysis of Limits for Memory Distance in Recurrent Neural Networks
CSG Tree Extraction from 3D Point Clouds and Meshes Using a Hybrid Approach
Constructing Organism Networks from Collaborative Self-Replicators
Towards Anomaly Detection in Reinforcement Learning
Case-Based Inverse Reinforcement Learning Using Temporal Coherence

2021
Visual Transformers for Primates Classification and Covid Detection
Goals for Self-Replicating Neural Networks
Acoustic Anomaly Detection for Machine Sounds based on Image Transfer Learning
Deep and Recurrent Architecture for Primate Vocalization Classification
Analysis of Feature Representations for Anomalous Sound Detection
Acoustic Leak Detection in Water Networks

2020
What to do in the Meantime: A Service Coverage Analysis for Parked Autonomous Vehicles
A Hybrid Approach for Segmenting and Fitting Solid Primitives to 3D Point Clouds
Policy Entropy for Out-of-Distribution Classification
Surgical Mask Detection with Convolutional Neural Networks and Data Augmentations on Spectrograms

2019
Deep Neural Baselines for Computational Paralinguistics
Self-Replication in Neural Networks

2018
Trajectory annotation using sequences of spatial perception

Auszeichnung

2023
Internat. Conf. on Agents and Artificial Intelligence (ICAART) - Best Poster Award

Further information

[redacted]

Steffen ▰▰▰ ▰▰▰ Illium

Machine Learning Expert
Data Scientist

Programming languages ———
Python & LaTeX

Bash Script

Kotlin & PHP

SQL & NOSQL

HTML & CSS

Scale: 0 (basic skills) - 6 (expert) .

Systems ———
Arch Linux, Debian Linux, Kubernetes, Windows, hypervisor

Software ———
PyTorch, Pandas, Shell, Docker, VS Code, IntelliJ, MS Office, Docker, WordPress, InkScape, WireGuard, ZFS

Language skills ———
German

English

Hobbies & Interests ———
[redacted]