

Daniel Kusuma

Eifelsstraße 44, 52068 Aachen

+491781961480 | daniel.kusuma@rwth-aachen.de | ksmdnl.github.io | github.com/ksmdnl | linkedin.com/in/daniel-kusuma | Daniel Kusuma

Education

Rheinisch-Westfälische Technische Hochschule Aachen

Aachen, DE

M.Sc. in Electrical Engineering

April 2023 - Current

- **Courses:** Computer Vision, Machine Learning for Audio and Speech Processing, Estimation and Information Fusion for Machine Learning, Functional Safety System, The Logic of Knowledge Bases

Technische Universität Braunschweig

Braunschweig, DE

B.Sc. in Electrical Engineering

Oct 2017 - March 2023

- Minors in Deep Learning
- Undergrad research advisor: Andreas Bär

Professional Experience

IAV GmbH

Braunschweig/Gifhorn, DE

Working Student

Sept 2019 - May 2022

- Maintenance, servicing and extension as well as programming and verification of scripts for the automatic evaluation of measurement data using UniPlot and UniScript
- Analysis of measurement data using Measure Data Analyzer
- Care, maintenance, expansion, programming, and verification of scripts for automatic evaluation of measurement data using UniPlot and UniScript.
- Developed frameworks for analyzing the vibration data of water and oil pumps, from building a data pipeline and the visualisation scheme to
- **Technical Skills:** UniPlot, UniScript, Matlab, bash, Python, NumPy, Matplotlib, Pandas, Scikit-learn, Scripting, Git.
- **Soft Skills:** Teamwork, Time Management, Communication, Presentation skills.

Signal Processing and Machine Learning Lab at Technische Universität Braunschweig

Braunschweig, DE

Student researcher

May 2022 - now

- Implementing a performance prediction framework for semantic segmentation and object detection with varying state-of-the-art backbones such as ResNet-18 to Transformer-based architectures in a modular way to accommodate further extensive studies.
- Reproducing paper benchmark results with own and external codebases.
- Running extensive experiments including efficient trainings and evaluations on the institute's GPU cluster.
- Contributing to institute's open-source code publications. Source code: [Performance Prediction](#)
- Co-authorship to institute's scientific publications. Source code: [Performance Prediction 2](#)
- **Technical Skills:** Python with PyTorch, NumPy, Matplotlib, Pandas, Scikit-learn, Linux tools, Scripting, Git.
- **Soft Skills:** Teamwork, Time Management, Communication, Presentation skills.

Peter L. Reichertz Institut für Medizinische Informatik an der Technischen Universität Braunschweig

Braunschweig, DE

Student researcher

May 2022 - now

- Building with the team for the project KI4ALL a centralised directory of educational materials around artificial intelligence and its applications. We are working to make topics around AI accessible for everyone.
- **Technical Skills:** LaTeX, Python with PyTorch, NumPy, Matplotlib, Pandas, Scikit-learn, Kaggle, Git.
- **Soft Skills:** Teamwork, Time Management, Communication, Presentation skills.

Volunteer

Vice President

Braunschweig, DE

Indonesian Students Association in Braunschweig

Oct 2017 - Dec 2019

- Established an initial communication between the association and the student initiatives within the campus.
- Led the organisation to hold a successful cultural night to introduce Indonesian culture to broader public.

Qualifications

Programming Python (Pandas, PyTorch, NumPy, Scikit-learn. etc.), R(ggplot2), HTML/CSS, JavaScript.

Miscellaneous Linux, Shell (Bash/Zsh), \LaTeX (Overleaf/R Markdown), Tableau, Microsoft Office, Firebase, Git.

Publications

CONFERENCE PROCEEDINGS

Interests

- Brazillian Jiu-jitsu and Judo** Learning and practicing martial arts plays a big role in establishing a balance between mind and body.
- Reading about biology** Learning about biology at times makes me personally appreciate our place in the world.
- Playing or making music** During my adult life I noticed that making music or learning new songs helps me being creative.

Languages

- German** Professional proficiency
- English** Professional proficiency
- Indonesian** Native proficiency
- Javanese** Native proficiency