Justus Will

Machine Learning Researcher / PhD student
/ Workshop Organizer @ NeurIPS 24

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GitHub, ORCID, LinkedIn, Google Scholar

Profile

- Advisor: Stephan Mandt
- 10+ years of diverse programming experience

Current Research

- Deep Generative Models
- Neural Data Compression
- ML and Climate Science

Skills

Fast Learner

Creative Problem Solving

Teamwork

Programming

Python, R, MATLAB, Java, C/C++, HTML/CSS/JS, SQL. Torch, TF, CUDA, Slurm, etc.

Languages

German

English

French

Spanish

Swedish

Interests

Snowboarding, Surfing, Volleyball, Travel, Cooking

Selected Publications

- Yu et al. - **ClimSim: A Large Multi-Scale Dataset For Hybrid Physics-ML Climate Emulation**, NeurIPS 2023 (Outstanding Paper Award; top 0.05% of submissions)
- Will et al. - **Understanding and Visualizing Droplet Distributions in Simulations of Shallow Clouds**, NeurIPS Workshop 2023
- Yang*, Will*, et al. - **Towards Scalable Compression with Universally Quantized Diffusion Models**, ICLR 2025 (submitted), NeurIPS Workshop 2024 (shortened)

Education

Ph.D. Computer Science, UC Irvine, USA

2023 – 2026 [est.]

M. Sc. Mathematics, TU Kaiserslautern (Lund University, Sweden)

2020 – 2022, GPA: 3.92 (top 1 %)

B. Sc. Mathematics & B. Sc. Computer Science, TU Kaiserslautern, Germany

2017 – 2020, GPA: 3.92 & 3.92 (top 2 %)

Experience

Research Assistant, October 2020 – December 2022

TU Kaiserslautern, Machine Learning Group

- Conducted research of use in chemical process engineering and beyond
- Developed a new tensor completion framework to make predictions for sparse tabular data and style-transfer methods for time series
- Ongoing collaboration, including as **invited speaker** at a Dagstuhl seminar

Research Assistant, October 2019 – May 2020

German Research Center for Artificial Intelligence (DFKI), Kaiserslautern

- Developed an evolutionary algorithm to optimize the topology and hyperparameters of convolutional networks
- Designed a web-based UI providing **50+** users intuitive access to the local GPU computation cluster, worked on front and back end

Student / Teaching Assistant, September 2018 – Current

TU Kaiserslautern / UC Irvine

- Supported **1000+** students across **10+** courses
- Various roles as supervisor, mentor, advisor, educator, and examiner
- Topics include probability theory, statistics, machine learning, and more