MARCEL KOLLOVIEH

PhD student at Technical University of Munich

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Germanv

marcelkollovieh.de



EDUCATION

PhD in Machine Learning and Data Analytics **Technical University of Munich**

Jun 2023 - Present

Munich

- Focus: Generative models for time series and graphs
- Supervisor: Prof. Dr. Stephan Günnemann

M. Sc. Informatics

Technical University of Munich

Oct 2019 - Oct 2022

Munich

- passed with high distinction
- Thesis: Learning Hierarchies in Data by Optimizing the Expected Dasgupta Cost

B. Sc. Informatics

Technical University of Munich

Oct 2016 - Oct 2019

- Munich / Singapore
- Thesis: Implementation and Analysis of Data Compression Algorithms based on the Burrows-Wheeler Transform
- Exchange: National University of Singapore, Aug 2018 Dec 2018

EXPERIENCE

Applied Scientist Intern

Amazon

Nov 2022 - Apr 2023

- Berlin
- Investigated time series forecasting using generative models
- Contributed to open-source package GluonTS

Student Assistant

HelmholtzZentrum München

Sep 2020 - Aug 2021

Munich

• Explored self-supervised learning and variational autoencoders in medical imaging

Student Assistant

Technical University of Munich

Apr 2020 - Oct 2020

Munich

• Tutor for Discrete Probability Theory

Working Student Software Engineering **BSI Business Systems Integration Deutschland GmbH**

Mar 2019 - Feb 2020

Munich

• Worked on Customer Relationship Management systems

VOLUNTEERING

Tutor

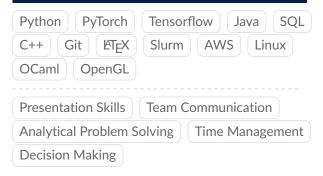
TUMinternational (TUMi) / Erasmus Student Network (ESN)



Mentor

MINGA Program, TUM Department of Informatics

STRENGTHS



LANGUAGES

English German Spanish



PUBLICATIONS

Journal Articles

• I. Ezhov, T. Mot, S. Shit, et al., "Geometry-aware neural solver for fast bayesian calibration of brain tumor models," IEEE Transactions on Medical Imaging, vol. 41, no. 5, pp. 1269-1278, 2021.

Conference Proceedings

- M. Kollovieh, L. Gosch, Y. Scholten, M. Lienen, and S. Günnemann, "Assessing robustness via score-based adversarial image generation," in arXiv preprint arXiv:2310.04285, 2023.
- M. Kollovieh*, A. F. Ansari*, M. Bohlke-Schneider, J. Zschiegner, H. Wang, and Y. Wang, "Predict, refine, synthesize: Self-guiding diffusion models for probabilistic time series forecasting," in Neural Information Processing Systems, 2023.
- J. Kukačka, A. Zenz, M. Kollovieh, D. Jüstel, and V. Ntziachristos, "Self-supervised learning from unlabeled fundus photographs improves segmentation of the retina," in Medical Imaging meets NeurIPS, 2021.