MARCEL FISCHER

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EDUCATION

Oct. 2021 - Present	**Master of Science – Computational Physics**, University of Heidelberg Master thesis: in the field of representation learning in cooperation with LMU Munich supervised by Prof. Dr. Björn Ommer (ongoing). Current grade: 1.4 [* grade scale explanations see below]
Oct. 2017 - Sep. 2021	**Bachelor of Science – Physics**, University of Heidelberg Semester abroad: Portland State University (Sep. 2019 - Apr. 2020, US) Bachelor thesis: *"Conditional Similarity Learning for Multilabel Classification of Medical Images"* supervised by Prof. Dr. Björn Ommer. Final grade: 1.8
Sep. 2009 - Jul. 2017	Wilhelmi-Gymnasium Sinsheim (High school) Final grade: 1.3

WORKING EXPERIENCE

Sep. 2021 - Present **Research assistant, Group of Prof. Dr. Ommer, Heidelberg University / LMU Munich**
- Work on own project in the field of representation learning
- Create new approaches based on recent research using Python, TensorFlow and Jax
- Increased classification performance of lung diseases by 11% based on ROC AUC score over baseline by using different metric learning techniques in combination
- Planned publication of results in a research paper at the beginning of 2023

Jan. 2019 - Present **Teaching assistant, Physics Department, Heidelberg University**
- Prepare and perform lab experiments as a supervisor
- Correct lab reports and provide help as needed
- Supervise groups of up to eight people of various backgrounds: physicists, chemists, medics

Sep. 2019 - Mar. 2020 **Intramurals Sports Official, Portland State University**
- Officiated soccer and basketball games as a referee and taught young referees the law of the game
- Organized game days together with colleagues
- Worked as a team on and off the field

EXTRACURRICULARS

Oct. 2021	Participated at **Q-Summit Hackathon by IBM** on the topic of bias free AI winning 2nd place (see projects on mafi2.github.io)
Since 2017	Member of the German Physics Society (DPG)
Since 2014	Soccer Referee
Since 2013	Member of the Big Band of Sinsheim (trumpet)

SKILLS

Programming Languages:	Python, R, C++
Frameworks/Libraries:	TensorFlow, Jax, Flax, PyTorch, NumPy
Miscellaneous:	Git, Latex
Languages:	German (mother tongue), English (fluent - spent 8 months in the US), French (intermediate), Chinese (fundamentals)

*) German scale of grades: 1.0 very good,   2.0 good,   3.0 satisfactory,   4.0 sufficient (lowest passing grade)