Tom Lieberum

Education

2018 – ongoing	**Bachelor (Computer Science)**, *RWTH Aachen University*.
2016 – 2019	**Bachelor (Physics)**, *RWTH Aachen University*, GPA 1.3 (Equivalent to 3.7 in the American system).
2013 – 2016	**High school**, *St. Willibrord-Gymnasium Bitburg*, Final grade 1.4.

Bachelor Thesis

Title	*Machine Learning for Top Tagging at the LHC*
Description	In my bachelor thesis, I investigated several approaches for discriminating hadronically decaying top-quarks from lighter quarks, using contemporary machine learning techniques, such as convolutional neural networks and autoencoders. I could partially replicate some of the existing literature and investigated several adjustments to the architectures of the neural networks and ways of interpreting the results.

Experience

11/2019 – ongoing	**Research Assistant**, *legacies.now*. Assisting research at legacies.now. legacies.now advises large-scale philanthropists on how to choose donation recipients.
10/2018 – 03/2019	**Teaching Assistant**, *Chair Experimental Physics III b*, Aachen. Tutoring, grading exercises and exams for the lecture Experimental Physics I.
10/2017 – 2/2018	**Teaching Assistant**, *Chair Experimental Physics I*, Aachen. Tutoring, supervising lab courses and grading exercises for the physics lab course for medical students.
03/2016 – 9/2016	**Au Pair**, *Beijing, China*. Providing teaching and day care for two children of a Chinese family living in Beijing. Also included were a language course and cultural courses.

Memberships

2017 – ongoing	**Effective Altruism Aachen e.V.**, *Group Organizer*. Organizing events to promote evidence-based, scientific approaches to philanthropy and ethics.

2017 – 2019 **Young German Physics Association, Aachen**.
Organizing events to facilitate exchange between students and professors. Organizing lab tours and speaker events related to physics, aimed at a student audience.

Languages

German	Native	English	C1
Chinese	B1		

Technical skills

Python	Intermediate	C++	Basic
LaTeX	Intermediate		