Patrick Richter

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EDUCATION

UNIVERSITY OF BATH   **Bath, England, UK**
MSc Data Science   Sep 2021–Expected Sep 2022
Predicted grade: First class honours
Relevant modules: Machine Learning, Reinforcement Learning, Software Technologies, Applied Data Science

- Applied various Machine Learning (Deep Neural Networks, SVMs, Random Forests, etc.) algorithms to 10+ Computer Vision and NLP problems (see [patrick-richter.github.io/projects](#) for details)
- Gained strong understanding for different domains of machine learning, including traditional, Bayesian, Reinforcement, and Deep Learning
- Learned how to handle and solve challenges those algorithms have when faced with real-world data
- Extensively used Python, SQL, and numerous Python libraries, including Keras, Tensorflow, Pandas, PyTorch, and matplotlib
- Acquired strong expertise in handling, analysis, visualisation, and presentation of complex datasets

UNIVERSITY OF STUTTGART   **Stuttgart, Germany**
BSc Mechanical Engineering   Sep 2017–Jan 2021
Grade: 1.2 ("very good with distinction" in German grading scale, top 2% of 400+ students)

- Gained a very strong understanding in Calculus, Linear Algebra, Physics, Software Engineering, and Thermodynamics
- Applied Deep Learning (LSTM) in the Bachelor's Thesis to develop a model that predicts battery aging and helps to detect battery failures early

PROFFESIONAL EXPERIENCE

VIALYTICS   **Stuttgart, Germany**
Data Science and Sales Intern (full time)   Apr 2021–Aug 2021
[Vialytics](#) is a fast-growing AI startup that helps local governments in detecting road damages (using images taken by a smartphone app) and effectively managing their roads

- Implemented 5+ projects in the Data Science and in the Sales team
- Encountered and overcame challenges that companies face when working with real-world Computer Vision applications (lack of training data, big differences between train and test data)
- Reached out and pitched to 10+ prospects and converted them into customers
- Collaborated with colleagues from different backgrounds to advance interdisciplinary projects

MERCEDES-BENZ   **Stuttgart, Germany**
R&D Working Student (20 hrs per week alongside the undergraduate degree)   Mar 2019–Nov 2020

- Fine-tuned parameters in the engine control of hybrid electric vehicles to attain the desired drivability and emission levels
- Implemented autonomous driving functions on engine control unit level
- Learned how to effectively communicate between different teams and departments to get projects done

SKILLS & LEADERSHIP

Technical Skills:	• Programming: advanced **Python** (5+ years), strong **SQL**, strong **Java** • Advanced knowledge in **Deep Learning** (CNN, RNN, fully connected), **SVMs**, and **unsupervised ML**
Projects:	Look at my website ([patrick-richter.github.io/projects](#)) for details
Languages:	Fluent in **English and German**, basic knowledge in French
Leadership Experience:	5+ years of voluntary work in a **leading role** at the youth section of my **local tennis club**. Areas of responsibility include training, the design and organisation of new tournaments, and the setup of campaigns to generate more members.