

Zhiyuan He

Schmalkaldener Str. 6, c/o Yin/Sheu, 22761 Hamburg, Germany

☎ +49 015226072524 | ✉ zhiyuanhebrian@gmail.com | 🌐 ZhiyuanH3 | in Zhiyuan He

Education

University Jena

BACHELOR OF SCIENCE IN PHYSICS

Focus: Laser Physics

Jena, Germany

October 2013 - October 2016

University Hamburg

MASTER OF SCIENCE IN PHYSICS

Focus: Experimental High Energy Physics

Hamburg, Germany

October 2016 - November 2019

Skills

Analytical skills	Machine Learning, Deep Learning, Statistics, Visualization
Programming Languages	Python, SQL, C
Python Tools	NumPy, Pandas scikit-learn, Keras Matplotlib Apache PySpark
Languages	English: fluent German: intermediate

Projects

Reconstruction techniques for long-lived particles in CMS calorimeters

MASTER THESIS

April 2018 - September 2019

- Achieved 126-fold improvement of FPR (under the same TPR) for the Signal/Background Classification with the help of Machine Learning techniques (BDT, Neural Networks)
- Tools: Python, NumPy, Pandas, scikit-learn, Keras, Matplotlib
- Skills: Data Cleaning, Feature Engineering, Visualisation, Classification, Deep Learning, Hypothesis Testing, Git, Linux
- https://drive.google.com/file/d/15BIZxzYdcyPiLTxZqiko_i8yXlaTYdbc/view?usp=sharing

Data analysis of a badminton player

PERSONAL PROJECT

December 2019 - January 2020

- Goal: To analyse the performance and potential rivalry of the badminton player Kento Momota from the Web scraped statistics
- Tools: Python, Pandas, Matplotlib
- Skills: Data Cleaning, Feature Engineering, Visualisation
- https://github.com/ZhiyuanH3/BadmintonDataAnalysis/blob/master/Badminton_data_analysis0.ipynb

Candy analysis

PERSONAL PROJECT

January 2020

- Goal: To analyse the features and popularity relationship of candies
- Tools: Python, Pandas, Matplotlib, scikit-learn, SciPy, Keras
- Skills: Regression Analysis, Visualisation
- https://github.com/ZhiyuanH3/Candy-Analysis/blob/master/candy_analyse.ipynb