Sebastian **Buschjäger**

RESEACHER AND PHD STUDENT

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Sebastian Buschjäger

Education

Overberg Grundschule   *Fröndenberg*
BASIC EDUCATION   *1996 - 2000*

Gesamtschule Fröndenberg   *Fröndenberg*
HIGH-SCHOOL DIPLOMA (ABITUR)   *2000 - 2010*

TU Dortmund   *Dortmund*
BACHELOR COMPUTER SCIENCE   *2010 - 2013*
- Computer Science with Minor in Electrical Engineering
- Bachelorthesis "Unsupervised Learning of Applied Robot Actuator Coordination"

TU Dortmund   *Dortmund*
MASTER COMPUTER SCIENCE   *2013 - 2016*
- Computer Science with Minor in Electrical Engineering
- Masterthesis "Online Gauß-Prozesse zur Regression auf FPGAs"

Berufserfahrung

Kommunix GmbH   *Unna*
INTERSHIP SOFTWARE DEVELOPMENT   *2006*

Communication Networks Institute, TU Dortmund   *Dortmund*
RESEARCH ASSISTANT (SHK)   *2010 - 2013*
- Development and implementation of a plotting tool in Matlab
- Development and implementation of a library for drone positioning in C/C++
- Development and implementation of algorithms for maximum search coverage with drones in Matlab and C/C++

Artificial Intelligence Unit, TU Dortmund   *Dortmund*
RESEARCH ASSISTANT (WHF)   *2013 - 2016*
- Literature research and writing of a Technical Report for communication technologies in ad-hoc networks for Embedded Systems
- Development and implementation of a scheduling algorithm in the `streams` framework
- Development and implementation of a wbcrawler for news entries of `welt.de`

Artificial Intelligence Unit, TU Dortmund   *Dortmund*
RESEARCHER AND PHD STUDENT   *2013 - 2016*
- Researcher and PhD Student in the SFB876, project A1

Skills

Programming	C/C++ (experienced), Python (experienced), Java (experienced), LaTex, Matlab
Frameworks	Numpy, SciPy, Pandas, Docker, Git and GitHub CI
Data Science	RapidMiner, Scikit-learn, PyTorch, Matplotlib and Plotly
Language	German, English

Honors

2007 - 2010	**Earning of University Credits during Highschool**, Projekt SchülerUni der TU Dortmund
2008/09	**Best Highschool Report of the Year**, Gesamtschule Fröndenberg
2010	**Valedictorian of Year 2010**, Gesamtschule Fröndenberg
2011 - 2012	**Scholarship Dortmunder-Modell**, TU Dortmund
2012 - 2013	**Scholarship Deutschen Telekom**, TU Dortmund
2016	**Masters degree with honors**, TU Dortmund

Publications

Randomized outlier detection with trees

S. Buschjäger, P.-J. Honysz, K. Morik

International Journal of Data Science and Analytics (2020). Springer International Publishing, 2020

Very Fast Streaming Submodular Function Maximization

S. Buschjäger, P.-J. Honysz, K. Morik

(2020). 2020

On-Site Gamma-Hadron Separation with Deep Learning on FPGAs

S. Buschjäger, L. Pfahler, J. Buss, K. Morik, W. Rhode

Joint European Conference on Machine Learning and Knowledge Discovery in Databases, 2020

Generalized Negative Correlation Learning for Deep Ensembling

S. Buschjäger, L. Pfahler, K. Morik

2020

Gaussian Model Trees for Traffic Imputation

S. Buschjäger, T. Liebig, K. Morik

Proceedings of the International Conference on Pattern Recognition Applications and Methods (ICPRAM), 2019

Realization of Random Forest for Real-Time Evaluation through Tree Framing

S. Buschjaeger, K.-H. Chen, J.-J. Chen, K. Morik

The IEEE International Conference on Data Mining series (ICDM), 2018

Decision Tree and Random Forest Implementations for Fast Filtering of Sensor Data

S. Buschjäger, K. Morik

IEEE Transactions on Circuits and Systems I: Regular Papers 65-I.1 (Jan. 2018) pp. 209–222. 2018

Summary Extraction on Data Streams in Embedded Systems

S. Buschjäger, K. Morik, M. Schmidt

Proceedings of the ECML Workshop on IoT Large Scale Learning From Data Streams, 2017

Online Gauß-Prozesse zur Regression auf FPGAs

S. Buschjäger

Masterthesis TU Dortmund (2016). 2016