



## Sebastian Dittert

📍 Kanalstr. 126, Berlin 12357

☎ +49 17650 669649

✉ sebastian.dittert@gmx.de, sebastian.dittert3692@gmail.com

🌐 [www.linkedin.com/in/sebastian-dittert/](https://www.linkedin.com/in/sebastian-dittert/)

🐙 <https://github.com/BY571>

Born: 03. June 1992

### WORK EXPERIENCE

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October 2019 – March 2020

#### Graduate, Master Thesis at ZF

ZF Friedrichshafen AG, Friedrichshafen

- Master Thesis: Optimization of the Control of Damper System / Chassis System through fast learning Deep Reinforcement Learning Algorithms

April 2019 – September 2019

#### Internship Machine Learning

ABB, Cottbus

- Working on development of autonomous reclaiming method for pithead stocks, based on reinforcement learning
- Working on optimization algorithms of mining processes

October 2016 – January 2017

#### Internship

Euro-k, Cottbus

- Working on Pressure loss calculations for the secondary air system of a turbo group housing
- Comparison and evaluation of 3D scan surface models as part of the company's internal quality assurance system

### EDUCATION

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2017 – present

#### Master of Science (Mechanical Engineering)

From Brandenburgische Technische Universität Cottbus-Senftenberg

- Specialization: Automotive Engineering

2012 – 2017

#### Bachelor of Science (Mechanical Engineering)

From Brandenburgische Technische Universität Cottbus-Senftenberg

- Specialization: Automotive Engineering

### Certifications

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April 2020 – May 2020

#### Udacity Nanodegree: Artificial Intelligence

December 2019 – January 2020

#### Udacity and Intel AI Edge Scholarship

May 2019 – July 2019

#### Udacity Nanodegree: Deep Reinforcement Learning

November 2017 – November 2018

#### Udacity Nanodegree: Self-Driving Car Engineer

#### Udemy Courses

- Deep Learning with PyTorch-Masterclass, January 2019
- Artificial Intelligence A-Z, Dec 2018
- Artificial Intelligence: Reinforcement Learning in Python, August 2017
- Practical Deep Learning with PyTorch, August 2017
- Machine Learning A-Z, June 2017

## Technical skills

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Programming Languages	<ul style="list-style-type: none"><li>• Python</li><li>• C++</li><li>• Matlab</li></ul>
Deep Learning Libraries	<ul style="list-style-type: none"><li>• PyTorch</li><li>• Keras</li></ul>
Other	<ul style="list-style-type: none"><li>• ROS</li><li>• OS: Linux Ubuntu</li></ul>

## Projects

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December 2017 – June 2018	<b>Construction of a Robo-Car / Autonomous RC-Car (Hardware and Software)</b> <ul style="list-style-type: none"><li>• Predict acceleration and steering angle through camera inputs and a CNN</li><li>• Driving autonomously along a track</li><li>• <a href="#">Video</a></li></ul>
June 2019 – ongoing	<b>Implementing Deep Reinforcement Learning Algorithms from scratch with PyTorch</b> <a href="#">Github</a> <ul style="list-style-type: none"><li>• Reinforcement Learning Upside-Down</li><li>• TD3 and SAC</li><li>• PG, PPO</li><li>• DDQN, Dueling DQN and Add-ons for Rainbow</li><li>• Genetic Algorithms and Evolution Strategies based on Neuro-Evolution</li><li>• Multi-Agent RL</li></ul>

## Personal skills

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Strengths	<ul style="list-style-type: none"><li>• High self-motivation.</li><li>• High curiosity and interest in learning new things.</li><li>• Ability to work under pressure.</li><li>• Ability to work individually as well as in a team.</li><li>• Excellent logical, analytical and computational skills.</li><li>• Positive attitude</li></ul>
Languages Known	<ul style="list-style-type: none"><li>• German : Native speaker</li><li>• English : Fluent</li><li>• Spanish : Beginner</li></ul>

## Hobbies

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- Sports
- Reading
- Cooking
- Technical tinkering
- learning and exploring new things