



# PAUL SCHULZE

Research and Development Engineer

Hamburg

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[schulze-paul.github.io](https://schulze-paul.github.io)

## EXPERIENCE

### Student Researcher

**Enercon GmbH**

08/2021 - Ongoing Bremen

Wind turbine manufacturer.

- Uncertainty Quantification of aerodynamic simulations in python.
- Analyzation of measurement data.
- Literature study of quantification methods and blade element theory.

### Student Researcher and Developer

**BIBA GmbH**

09/2020 - Ongoing Bremen

- Set up of a simulation model of a manufacturing facility in Anylogic.
- Implemented data analytics and process optimization.
- State chart based design and object-oriented approach using Java.

### Internship R&D Biomedical Engineering

**Carl Zeiss Meditec AG**

10/2019 - 12/2019 Oberkochen

Internship in the development of ophthalmology surgical instruments.

- Implemented electromechanical simulations in MATLAB Simulink.
- Developed a MATLAB script and GUI to streamline the measurement process and perform automatic data analysis and parameter identification.
- Carried out and analyzed electromechanical experiments

### Bachelor Thesis and Student Researcher

**BIAS GmbH**

05/2018 - 04/2019 Bremen

<https://github.com/schulze-paul/SPICE-Coherent-Light-Simulations>

Shape measurement of object surfaces using partially coherent illumination.

Grade: 1,3

- Implemented electromechanical simulations in MATLAB Simulink.
- Developed a MATLAB script and GUI to streamline the measurement process and perform automatic data analysis and parameter identification.
- Carried out and analyzed electromechanical experiments

## EDUCATION

### Master of Science

#### Applied and Engineering Physics

**Technical University of Munich**

2020 - 2022

Grade: 2.8

### Bachelor of Science

#### Physics

**University of Bremen**

2015 - 2019

Grade: 2.36

### Erasmus Semester

**Leiden University, Netherlands**

2017 - 2018

## SKILLS

Applied Physics

Simulation

Python

Numpy

MATLAB

Java

Data Science

Machine Learning

UX/UI Development

Data Structures

Git

Linux

## PROJECTS

### Video Laboratory

<https://github.com/schulze-paul/Video-Laboratory>

Video Laboratory is a data annotation tool written in JavaScript on React and Electron that combines automated data retrieval through the YouTube API with an intuitive UX in for fast and accurate video coding.

### Solitaire AI

<https://github.com/schulze-paul/Solitaire-AI>

A recursive algorithm that explores every possible move in peg solitaire and finds the perfect game.

### Discourse Analytics

<https://github.com/schulze-paul/discourseAnalytics>

Data analytics toolbox and data crawler in Python for Discourse. The discourseAnalytics API makes it easy to sort, filter and search through posts and display or plot the data.

### Tiny Forest Fundraising Campaign

<https://www.startnext.com/tiny-forest-project>

Reforestation Project

- € 6300 in funds raised.
- 400 trees planted.
- Planned and installed an irrigation system.

## CERTIFICATES

**Agile Software Development: Clean Code Practices**

LinkedIn 2020