Email: jonathan.hellwig@protonmail.com

# Jonathan Hellwig

Location: Hamburg, Germany

Website: jonathan-hellwig.github.io

#### **PROFILE**

As an industrial mathematics graduate with a deep interest in robotics and machine learning, I am eager to work and innovate on real-world systems. My experiences demonstrate my enthusiasm to embrace new topics applying my mathematical background.

#### **SKILLS**

### **Machine learning with PyTorch**

Image classification, object detection and reinforcement learning

# Processing of noisy

Sensor fusion

measurements in a real-time system

# Optimization on real-world systems Iterative closest line algorithms for noisy

line detections in image data

#### **TECHNICAL**

Languages Python, Rust, R

#### **EXPERIENCE** Member of Robocup SPL team HULKs

HULKs e.V.

Localization, object detection, sensor fusion Participation in the RoboCup 2021, Thailand

## **Group tutor for Numerical methods in geosciences**

**University of Hamburg** 

# Apr 2022 - Sep 2022

Jun 2021 - Present

Hamburg, Germany

Hamburg, Germany

#### Research assistant for Prof. Dr. Jörn Behrens

University of Hamburg
Shallow water wave simulation

#### Jan 2022 - Jun 2022 Hamburg, Germany

Internship at actuarial department

## SIGNAL IDUNA

Estimation of loss reserves

#### Feb **2021**

Hamburg, Germany

# **Group tutor for Optimization**

University of Lübeck

#### Apr 2019 - Sep 2019

Lübeck, Germany

## Group tutor for Linear Algebra

**University of Lübeck** 

# Oct **2017** - Sep **2019**

#### Lübeck, Germany

#### **EDUCATION**

# Industrial mathematics (M.Sc.)

**University of Hamburg** 

## Oct 2020 - Feb 2023 Hamburg, Germany

Thesis topic: Relations between variants of stochastic gradient descent and

stochastic differential equations Advisor: Dr. Jens-Peter Zemke

Average grade: 1.3

## Computational Life Science (B.Sc.)

Universität zu Lübeck

Oct 2016 - Sep 2019

Award for best graduate 2019

Thesis topic: Multilevel Monte Carlo simulations

Advisor: Prof. Dr. Andreas Rößler

Average grade: 1.3

Lübeck, Germany