# Jonas Schäfer

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### SKILLS

#### PROGRAMMING LANGUAGES

Competent: Python • Java

Familiar: Kotlin • TS • Haskell • C • Zsh

#### **MARKUP & STYLING**

LATEX • Markdown • HTML • (S)CSS

#### **TECHNOLOGIES AND TOOLS**

Git • Sklearn & PyTorch • Firebase • Angular • Hugo • Agile • UML • TDD • Linux • macOS

#### **LANGUAGES**

- > German (native C2)
- > English (fluent C1/C2)
- > French (advanced B1)

#### **INTERESTS**

Science videos, listening to music and playing the guitar & piano , travelling, photography, learning languages

## **EDUCATION**

#### **UNIVERSITY OF BIRMINGHAM**

BSc Computer Science (Hons) 09/2018 - 06/2021 | Birmingham, UK

- ➤ Predicted degree: 1<sup>st</sup> Honours
- ➤ Student Representative for 2<sup>nd</sup> Year Computer Science courses
- > Prominent topics covered include:
  - Machine Learning
  - Mathematical Modelling
  - Omputer Vision & Robotics
  - Software Engineering
  - Mathematics & Logic
  - Data Structures & Algorithms
  - Networks & Security

#### WARNDTGYMNASIUM

Abitur | Overall 1.5 07/2018 | Geislautern, Germany

- > Examination subjects: English (14), Mathematics (13), German (13), Informatics (12), Geography (10)
- Honor received for school's best final Informatics exam

### WORK EXPERIENCE

#### ROYAL SOCIETY INDUSTRY SUMMER STUDENTSHIP

University of Birmingham, School of Biosciences 07/2020 – 09/2020 | Full-time Studentship | Remote

- ➤ This research was funded by <u>The Royal Society</u> and supervised by Dr. Jackie Chappell . Senior Lecturer in Animal Behaviour.
- ➤ I iteratively designed a Deep Neural Network-based system to monitor behaviour of captive animals via CCTV-applied pose estimation.
- ▶ I presented my work at <u>The Royal Society Industry Fellows event</u> ✓ where numerous academics and industry experts praised my research.
- >> Within 10 weeks, I independently aquired fundamental Computer Vision knowledge required for this opportunity. I worked with real data to design a monitoring system which is now being <u>further researched</u> ∠.

## WEB DEVELOPER & GERMAN PARTNERSHIP LEAD | Climate Science ☑

12/2019 - Present | Part-time (voluntary) | Remote

- ➤ I coordinate development with the CTO and implement and maintain the organisation's web app in a dynamic technical team of 4-8 members.
- ➤ I lead the coordination and negotiation of partnerships and funding with private companies & regional and national ministries in Germany.
- ➤ Our web platform currently reaches about 18,000 monthly users (February 2021) with an increase in users of 57% to the previous month.
- I continuously devote time to combat Climate Change misinformation, aquire web technology expertise and deploy customer-facing products.

## IT SYSTEM ADMINISTRATOR | ProWIN Winter GmbH 2 07/2019 (3 weeks) | Full-time Internship | Illingen, Germany

>> I improved the company's operating efficiency by automating order confirmations across departments and improved password policies for employees to enhance network security.

## PROJECT EXPERIENCE

#### **CARDIAC MRI - SEMANTIC IMAGE SEGMENTATION**

11/2020 – 12/2020 | University coursework - Neural Computation

- Our team was tasked with performing image segmentation on a real CMRI dataset and writing a scientific report on our approach and result.
- ➤ We implemented and trained a custom UNet architecture in PyTorch to achieve a 89% DICE-score on the <u>Kaggle coursework competition</u> .
- >> I co-lead my team of 5 members to a 91% grade, displaying leadership & team managament skills, methodical thinking and academic rigor.

#### **GRAVITY SIMULATION IN JAVA**

11/2019 | Private Software Project

- ➤ <u>Simulator</u> of gravitational forces in 3D space capable of performing complex <u>n-body simulations</u> with logging output, collision detection,...
- >> I display my ability to design software and produce clean, easily extendable and well-documented code for complex private projects.