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 (intermediate - 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**: 1st Honours
> **Student Representative** for 2nd Year Computer Science courses
> Prominent topics covered include:
>> Machine Learning
>> Mathematical Modelling
>> Computer 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 The Royal Society 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 The Royal Society Industry Fellows event 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 further researched.

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
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 Kaggle coursework competition.
>> 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

> Simulator of gravitational forces in 3D space capable of performing complex n-body simulations 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.