

Jonas Schäfer

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Education

University of Birmingham

Birmingham, United Kingdom

Bachelor of Science (BSc) in Computer Science

09/2018 – Present

- Expected graduation in June 2021
- Current average of assessed work: **85%**
- First year Computer Science courses (20CP each): *Programming in Java, Mathematical Foundations, Artificial Intelligence, Data Structures & Algorithms, Logic & Computation*
- First year Widening Horizons Module - Astronomy (20CP): *The Cosmic Connection*

Warndt-Gymnasium, Völklingen

Geislautern, Germany

Secondary School

08/2010 – 07/2018

- Graduated **Abitur 1.5** with examination subjects:
English - 14, Mathematics - 13, Informatics - 12, Geography - 10, German - 13
- Honor received for **Year's best Informatics exam**

Programming Projects

Basic Maze Solver - Artificial Intelligence (Robotics) - 9/10

01/2019 - 02/2019

- Building and coding a LEGO EV3 robot with Java leJOS to use motors + light and distance sensors to follow a Maze system and avoid obstacles. It follows a line and detects different markings for various instructions.

→ Proven to lead my group under time pressure to great results and apply knowledge from many modules to the problem

Maze Mapper - Data Structures & Algorithms - 100/100

01/2019 - 02/2019

- Implementing a *Drone* class that can move through an arbitrary *Maze* (consisting of chambers and connections between them) and maps it using various data structures and methods. At any point it can return (loop-less) to its origin.

→ Improved my programming capabilities by using more complex data structures and implementing an advanced project

Genetic Algorithm(s) - Programming in Java - 100/100

11/2018 - 12/2018

- Designing an *Individual* representation as well as implementing an abstract genetic algorithm *GAApplcation* class that can be specified into a *Binary Maximiser*, *Weasel* or *Maths* genetic algorithm.

→ Learned to properly use tools of Java as an Object-oriented programming language and how to design and adjust GAs

Further projects, details and code can be found on my [GitHub repository](#)

Internship Experience

Engineering Internship "IngFo" at Saarland University (2 weeks)

07/2015

- Introduction to a wide range of Engineering fields (e.g. *Materials, Automation, Systems Engineering, Drive Technology*).
- Gained insight into research and inner company workings of *HYDAC International GmbH* & *ZF Friedrichshafen AG* and enhanced group my working skills in both research and industry environments

Extracurricular Activities

Astronomy Talk

03/2017

- Advertising science subjects at the *Science night* of the Warndtgymnasium by explaining astronomic phenomenons
- Demonstrated presentation skills and the ability to share enthusiasm for Science with others

Skills & Interests

Programming: Java, Python (basic), C (basic)

Markup: L^AT_EX, Markdown

Technologies / Tools: Git, JUnit, Apache Log4j

Languages: German (native), English (fluent), French (advanced), Polish (basic)

Interests: Programming, Sciences (esp. Space-related), Music (esp. playing the guitar & piano), Languages, Travelling

[References available on request - CV last updated as of March 4, 2019]