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, Artifical 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.

→ Quickly learned to apply the newly learned programming language theory of *Java* to write this first proper method

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 *GAApplication* 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: LaTeX, Markdown
Technologies / Tools: Git
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 3, 2019]