

# Stefan M. Schulz

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## Education

<b>University of Bonn</b>	04/2023 - 10/2024
Master of Science, Computer Science   current GPA: 1.7	
• Semester abroad at Aalto University, Finland	08/2023 - 01/2024
<u>Coursework:</u> Quantum Machine Learning, Numerical Algorithms for Visual Computing and Machine Learning, Computer Vision, Lab Physics-based Deep Learning	
<b>University of Bonn</b>	10/2019 - 03/2023
Bachelor of Science, Computer Science   GPA: 1.3 (excellent)	
<u>Coursework:</u> Data-centric Computer Science, Foundations of Artificial Intelligence, Introduction to Data Science, Computational Intelligence, Linear Algebra, Calculus, Introduction to Probability and Statistics	
<b>Friedrich-Ebert-Gymnasium, Bonn</b>	09/2011 - 05/2019
Abitur   GPA: 1.4	
International Baccalaureate   Points: 35	
• Semester abroad at Nanaimo District Secondary School, Vancouver Island, Canada	09/2016 - 02/2017

## Professional Development

<b>deeplearning.ai</b> , Coursera	07/2020 - 10/2020
MOOC - Deep Learning Specialization	
<b>deeplearning.ai</b> , Coursera	07/2020 - 10/2020
MOOC - Natural Language Processing Specialization	
<b>University of Washington</b> , Coursera	07/2020 - 10/2020
MOOC - Machine Learning Specialization	
<b>Hasso-Plattner-Institut</b> , openHPI	03/2020 - 05/2020
MOOC - Practical Introduction to Deep Learning for Computer Vision	

## Skills

**Programming:** Python, Java, C++, HTML, CSS  
**Tools:** git, PyTorch, Python scientific libraries, LaTeX, MS Office  
**Languages:** German (mother tongue), English (C1), Spanish (B2), French (B1)

## Experience

<b>University of Bonn</b>	08/2021 - today
<b>Tutor</b> for “Computational Intelligence“	04/2024 - today
• Supervising 2 exercise groups (7 & 11 students) meeting weekly	
• Grading assignments and preparing exercise solutions	
<b>Research Assistant</b> with focus on VR/AR/Computer Vision	03/2024 - today
• Working on a program for interactive reconstruction of primitive-based plant structure	
<b>Research Assistant</b> with focus on Medical Computer Vision	05/2023 - 11/2023
• Worked on image segmentation techniques for automated drusen instance-aware segmentation in OCT-Scans	
• Analyzed characteristics of drusen and checking if these can be categorized into different types	
<b>Research Assistant</b> with focus on Computer Vision	02/2023 - 10/2023
• Worked on different image inpainting techniques in 3D to reconstruct temperature data from satellites	
• Publication: <a href="https://www.mdpi.com/1424-8220/24/5/1604">https://www.mdpi.com/1424-8220/24/5/1604</a>	
<b>Tutor</b> for “Intelligent Vision Systems“	10/2022 - 04/2023
• Supervised 2 exercise groups (9 & 6 students) meeting weekly	
• Graded assignments and explained assignment solutions to the students	
• Helped correcting all exams	
<b>Research Assistant</b> with focus on Robotics/Computer Vision	04/2022 - 10/2022
• Helped building another version of our robots for the university robotics team called „NimbRo“	
• Won the AdultSize Humanoid League as well as the Technical Challenges, and the Best-Humanoid Award at RoboCup 2022	
• Publication: <a href="https://arxiv.org/pdf/2302.02956.pdf">https://arxiv.org/pdf/2302.02956.pdf</a>	

**Tutor** for “Computational Intelligence“ 04/2022 - 10/2022  
• Supervised 2 exercise groups (8 & 11) meeting weekly  
• Graded assignments and explained solutions to the students  
• Prepared exam solutions and helped grading exams

**Tutor** for “Data-centric Computer Science“ & “Foundations of Robotics“ 09/2021 - 04/2022  
For “Data-centric Computer Science“:

- Helped preparing 17 lecture slides and 6 exercise sheets
- Supervised 4 exercise groups (24 & 24 & 12 & 9 students) meeting bi-weekly
- Graded assignments and explained assignment solutions to the students
- Helped correcting all exams

For “Foundations of Robotics“:

- Supervised 2 exercise groups (16 & 20 students) meeting weekly
- Provided material for and explained assignment solutions to the students

**Research Assistant** with focus on Robotics/Computer Vision 08/2021 - 10/2021  
• Worked on Image-to-Image translation methods for Pose Estimation of Humanoid Robots

**SERgroup Holding International GmbH**, Bonn 08/2017 - 08/2017  
**Intern** for Project Development & Project Handling

**SERgroup Holding International GmbH**, Bonn 08/2016 - 08/2016  
**Intern** for Project Development

## Awards

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- Deutschlandstipendium 10/2020 - 10/2021
- Deutschlandstipendium 10/2021 - 10/2022
- Deutschlandstipendium 10/2022 - 10/2023
- Deutschlandstipendium 10/2023 - 10/2024

## Volunteering

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- Member of local youth care 05/2018 - 07/2021
  - Organization and carryout of multiple summer camps