# Julian Aßmann

*Curriculum Vitae*

## Personal Information

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| Date of Birth | October 30, 1998, Heilbronn |
| Nationality | German |
| Email | kontakt@julianassmann.de |
| Github | JulianAssmann |

## Education

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| since October 2024 | **PhD Candidate**, *University of Mannheim*, <br> Working on Efficient Inference. |
| 2022–2024 | **Master of Science in Computer Science**, *Karlsruhe University of Applied Sciences*, <br> Final grade: 1.0 with distinction (GPA: 4.0). |
| 2018–2022 | **Bachelor of Science in Computer Science**, *Heidelberg University*, <br> Final grade: 1.4 (GPA: 3.6). |
| 2016–2018 | **Physics**, *Heidelberg University*. |
| 2009–2016 | **High School Diploma (Abitur)**, *Mönchsee-Gymnasium Heilbronn*, <br> Final grade: 1.1 (GPA: 3.9). |

## Professional Experience

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| since October 2024 | **SAP SE**, *PhD Candidate*. <br> Research in Sustainable AI |
| Sept. 2022 – Sept. 2024 | **SAP SE**, *Dual Master's Student*. <br> ○ ABAP Platform - Enterprise Event Enablement <br> ○ Extended Warehouse Management <br> ○ Innovation Center Network <br> ○ Machine Learning Center of Excellence |
| Oct. 2019 – August 2020 and March 2021 – Sept. 2021 | **Heidelberg University**, *C++ Programming Course Tutor*. <br> Supporting Dr. Daniel Kondermann and Dr. Maximilian Hoecker in three C++ programming courses at the university. <br> ○ Supporting and mentoring students through weekly online tutorials <br> ○ Creating and expanding exercise sheets and exams <br> ○ Grading exercises and exams, partially through programming automated assessment systems |
| March 2020 – February 2021 | **Central Institute for Computer Science, Heidelberg University**, *Student Research Assistant*. <br> Supporting the development of an autonomous wheelchair <br> ○ Developing software for communication between the Robot Operating System (ROS) and motor control via CAN bus <br> ○ Reverse engineering of an undocumented CAN-based protocol <br> ○ Extending the control system based on the QNX real-time operating system |
| since 2012 | **Programming Tutorials on YouTube**. <br> Production of video tutorials on various programming languages on the channel Turing Informatik <br> ○ Over 8,000 subscribers <br> ○ Over 900,000 video views |

## Internships

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| March 2018 – April 2018 | **German Aerospace Center (DLR)**, *Institute of Space Propulsion*, Rocket Propulsion Department, Lampoldshausen, *voluntary*. |
| | Development of a Python program to correct dynamic pressure measurements of an experimental rocket engine at the P8 rocket test stand, taking into account the position of pressure sensors in a measurement tube on the engine. |
| August 2016 | **German Aerospace Center (DLR)**, *Institute of Space Propulsion*, Rocket Propulsion Department, Lampoldshausen, *voluntary*. |
| | Further development of an image processing program based on OpenCV and C++ to analyze component movements during rocket engine testing, as well as data preparation, structuring, and input for a new document management system. |

## Competitions and Awards

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| since September 2024 | **Deutschlandstipendium**, *Karlsruhe University of Applied Sciences*. |
| | Awarded the Deutschlandstipendium in recognition of academic achievements and social engagement. |
| March 2020 | **#wirvsvirus**, *Hackathon*, under the patronage of the German Federal Government. |
| | App JOBS AROUND YOU (JAY) for communication between help seekers and helpers during the Corona pandemic. |
| | ○ Among the top 20 winners out of approximately 1500 projects |
| | ○ Development of the backend based on Docker, Node, and Postgres |
| November 2018 | **Young Innovators Camp**, *Arnfried and Hannelore Meyer Foundation*, 3rd Place. |
| | Development of an autonomous robot for mapping indoor spaces, e.g., in construction sites. |
| | ○ Development of control software based on the Robot Operating System (ROS) |
| | ○ Development of a web app for robot communication |
| March 2017 | **Young Talent Award**, *Heilbronn University*. |
| | Development of the autonomous robot SUNCHASER to maximize solar yield in the final school year. |
| | ○ Development of firmware for autonomous robot control based on the Arduino platform |
| | ○ Development of an Android app for remote control via Bluetooth |
| November 2016 | **Show Us Your Power!**, *Student Competition of the German Aerospace Center (DLR)*, 1st Place. |
| | Development of the autonomous robot SUNCHASER (see above). |

## Extracurricular Courses

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| January 2018 | **Data Science**, *Winter Academy of the German Student Academy Alumni Club*. |
| | One-week introductory course in Data Science featuring various Machine Learning techniques and development of a credit scoring system. |
| July 2015 – Aug. 2015 | **Neural Networks**, *German Student Academy*, Klosterschule Roßleben. |
| | 16-day course on neural networks followed by the development of a neural network for creating simple compositions. |
| March 2015 | **Molecular Biology**, *Junior Academy of aim-akademie*, Heilbronn. |
| | Fundamentals of molecular biology followed by genetic modification of bacteria in the laboratory. |
| April & October 2014 | **NiboBEE Robot Construction: Assembly and Programming & Reloaded**, *Junior Academy of aim-akademie*, Heilbronn. |
| | ○ Assembly of the NiboBEE robot followed by control software development |
| | ○ Assembly of an extension kit followed by further development of the control software |

## Skills and Competencies

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| Programming Languages | Python, C/C++, Rust, C#, Java, JavaScript/TypeScript, Dart |
| Frameworks | PyTorch, Numpy, Pandas, PySpark, Flutter |
| Tools | Jupyter Notebook, Git/GitHub, Visual Studio Code, Docker, LaTeX |
| Languages | German (native), English (fluent) |
| Other | German Driver's License (Class B) |