


Jonas Heinle

Information Scientist | Master of Science

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“Wahrlich es ist nicht das Wissen, sondern das Lernen, nicht das Besitzen, sondern das Erwerben, nicht das Da-Seyn, sondern das Hinkommen, was den grössten Genuss gewährt.” (Carl Friedrich Gauß)

Experiences

today	Research Associate Scene Analysis, AI Software Development & Image Processing, STUTTGART, Fraunhofer IPA <ul style="list-style-type: none">➢ Software development for scene analysis, especially related to 2D and 3D person, object motion detection and analysis➢ Application-oriented AI-based software development➢ Human-centered project implementation by taking into account the results of user needs analyses➢ Utilization and application of modern, different sensor technologies➢ Development and evaluation of new research approaches for scene analysis (software and hardware concepts) <div>Machine learning Python Image processing</div>
February 2024	
May 2023	Research assistant, KARLSRUHE, CAS Software AG <ul style="list-style-type: none">➢ providing user guidance in mixed reality applications➢ using new machine learning approaches and eye tracking <div>Machine learning Mixed reality HoloLens2 C# Python</div>
October 2022	




Education

September 2023	Master of Science Computer Science Student, KARLSRUHE, Karlsruhe Institute of Technology
April 2020	Overall grade: 1.9/ US-GPA: 3.1 <ul style="list-style-type: none">➢ Thesis: Designing User-adaptive Guidance for Mixed Reality Using Eye Tracking <div>AI Computer Graphics and Geometry Processing Anthropomatics and Cognitive Systems</div>
March 2020	Bachelor of Science Computer Science Student, KARLSRUHE, Karlsruhe Institute of Technology
October 2015	Overall grade: 2.5/ US-GPA: 2.5 <ul style="list-style-type: none">➢ Thesis: Temporally Stable Blue Noise Error Distribution in Screen Space for Real Time Applications <div>Path Tracing Blue Noise</div>
2014	Pupil Higher education entrance qualification (A-levels), SCHWÄBISCH HALL, Gymnasium bei St. Michael
2006	Overall grade: 2.2/ US-GPA: 2.8 <ul style="list-style-type: none">➢ First steps in Procedural programming: Sudoku project➢ Started learning Java autodidactically <div>Delphi Pascal Java</div>

Teaching and Mentoring

<p>August 2022 October 2018</p>	<p>Technical computer science Tutor, RESEARCH ASSISTANT, Karlsruhe Institute of Technology</p> <ul style="list-style-type: none"> › Teaching undergraduates in digital technology. This includes inter alias control units, run-time effects, computer arithmetic, boolean algebra, NAND/NOR gates, MOSFET, CMOS, Quine-McClusky, hazards, sequential circuit › Teaching undergraduates in computer organization which includes inter alias c programming, caches, assembler, memory organization, DLX-pipelining, RAM, paging, segmentation <p> LaTeX C Assembler MIPS RISC-V </p>
<p>August 2021 January 2020</p>	<p>Mathematics Tutor, FREELANCER, Karlsruhe</p> <ul style="list-style-type: none"> › Teaching pupils in mathematics <p> Mathematics </p>

Projects

<p>RENDERER</p> <p>  github.com/Kataglyphis/GraphicsEngineVulkan  github.com/Kataglyphis/GraphicEngine </p> <p>This projects provide me with a solid Vulkan/OpenGL starting point for implementing modern established rendering techniques and getting quickly started in own research topics.</p> <p> CMake C C++ Python Vulkan OpenGL </p>	<p>2020-NOW</p>
<p>MACHINE LEARNING ALGORITHMS</p> <p>  github.com/Kataglyphis/MachineLearningAlgorithms </p> <p>This project provides me a solid Machine Learning(ML) starting point for implementing modern established ML algorithms and getting quickly started in own research topics.</p> <p> LaTeX Python R </p>	<p>2020 - NOW</p>

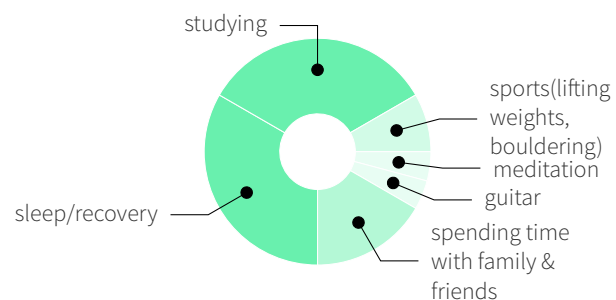
Languages

- › German
- › English, level B2
- › French, level B1
- › Latin

Hobbies

- › Powerlifting
- › Boulderling
- › Guitar
- › Philosophy
- › Politics

A Day of My Life



International experience

- › October 2012 - November 2012: Student exchange India, Mayo College Ajmer

Volunteering

- › February 1, 2015 - August 1, 2015: Federal Volunteers Service at AWO (worker welfare) in Schwäbisch Hall (delivering Meals on Wheels, various driving services, assisting a 16 year old boy with autism in school)

Extracurricular courses/certificates

- › Computer Graphics with Modern OpenGL and C++
- › Learn the Vulkan API with C++
- › Master Computer Vision OpenCV4 in Python with Deep Learning
- › “Start in der Lehre” - tutor program at the Karlsruhe Institute of Technology (KIT): The aim of the program is to develop teaching skills alongside practice.
- › Seminar on political education from the Federal Office for Family and Civil Society Tasks