Christoph Schorn

schorn.cc | christoph.schorn@gmail.com

EDUCATION

RWTH AACHEN UNIVERSITY
MSc in Computer Engineering
Oct 2016 | Aachen, Germany
Graduating in Sept 2018

RWTH AACHEN UNIVERSITY
BSc in Electrical Engineering
Oct 2013 | Aachen, Germany
Final grade[1]: 1.9 | graduated Sep 2016

GYMNASIUM AM WIRTELTOR
Abitur | Grade[1]: 1.5
Graduated 2013 | Düren, Germany

[1] *German grading system: 1.0 = 100 % | 4.0 = 50 %*

LINKS

Homepage | **schorn.cc**
GitHub | **chrschorn**
LinkedIn | **christoph-schorn**
Xing | **christoph-schorn**

SKILLS

PROGRAMMING
Over 5000 lines:
Python • C++ • Matlab • JavaScript • Shell • LaTeX
Over 1000 lines:
C • Java • PHP • HTML • CSS
Familiar:
Lua • SQL • Assembly • Go

LANGUAGES
German (native speaker)
English (fluent, C2 RWTH certificate)

COURSEWORK

EXTRACURRICULAR
Machine Learning by Andrew Ng on Coursera, Stanford Online

MASTER / BACHELOR
High Performance Computing
Big Data Analytics
Artificial Intelligence
Artificial Neural Networks
Digital Image Processing + Practicum
Robotics and Man-Machine Interaction
Virtual Reality

Computer Science + Practicums
3D Simulation Project
Cryptography
Operating Systems
System Theory
Electrical Engineering
Higher Mathematics

EXPERIENCE

ROBERT BOSCH CAR MULTIMEDIA GMBH | Engineering Intern
Oct 2017 – Present | Hildesheim, Germany

- Devise a concept for visual real-time object detection inside cars to enhance passenger safety
- Utilize latest ML/DL methods while meeting strict requirements and complying with restrictions
- Lead the project through all stages: research, concept design, data aquisition, implementation (C++/Python, tested code), training, evaluation, demonstration (e.g. for potential customers)

INSTITUTE OF IMAGING & COMPUTER VISION | Research Asst.
Nov 2016 – Sep 2017 | Aachen, Germany

- Rewrote a deep learning Keras/TensorFlow project to improve speed and accuracy
- Evaluated data synthesis and different neural network architectures and to improve performance
- Designed and tested different rating algorithms for automated image selection (Python)

INSTITUTE FOR MAN-MACHINE INTERACTION | Research Asst.
Apr 2015 – Oct 2016 | Aachen, Germany

- Collaboratively developed a distributed REST/Microservice web framework & network architecture
- Evaluated and identified best front-/backend & deployment tools for the web framework project: Python, Flask, Protocol Buffers, gRPC, SQL-abstraction, GitLab CI/CD, docker (excerpt)
- Optimized database structure and SQL queries in C++, Python and MATLAB projects

PROJECTS

BACHELOR THESIS April – Sep 2016 | Aachen, Germany

- Designed and implemented a Python framework on top of the VEROSIM (simulation software) C-API, enabling users to easily analyze, manipulate and solve simulation-based optimization problems using parallelized simulations
- Optimized camera poses within a reconfigurable multi-robot workcell to achieve maximum visibility of an automotive light throughout its assembly process using the developed framework

PUBLICATIONS

[1] L. Atorf, **C. Schorn**, J. Rossmann, and C. Schlette, "A framework for simulation-based optimization demonstrated on reconfigurable robot workcells," in *2017 IEEE International Systems Engineering Symposium (ISSE)*. doi: 10.1109/SysEng.2017.8088278.

AWARDS

SCHOLARSHIPS
2017 Scholarship renewal
2016 Scholarship renewal
2015 1-year scholarship by Robert Bosch GmbH & RWTH Aachen Eduaction Fund

INTERESTS

PIANIST for 15 years: solo and in bands, e.g. my band Funk Force 5