Vincent Hilla

Computer Science

vincent.hilla@rwth-aachen.de

+49 157 8969 8036

linkedin.com/in/vincent-hilla/

vinhill.github.io

Bergdriesch 7,
52062 Aachen

Languages

German native

English C1

Skills

Programming C++, Python, JavaScript, Prolog

Data Science Python, Numpy, Matplotlib, Seaborn, Pandas, Networkx, Keras, Tensorflow, Scikit

Web development JavaScript, Node.js, Express, Angular, React, SQL, Jest, HTML

Other LaTeX, MS Office, UML, Drivers Licence

Education

Computer Science M.Sc. (current ∅ 1.0) RWTH Aachen

Mar. 2022 – Jun. 2024 • 2 years 6 months

Focus on machine learning and computer vision.

Exchange Semester (∅ 1.5) Aug. 2022 – Dec. 2022 Aalto University

Computer Science B.Sc. (∅ 1.1) RWTH Aachen

Oct. 2018 – Mar. 2022 • 3 years 6 months

Strong theoretical background and biology minor. Top 4% of class.

Exchange Semester Aug. 2020 – Dec. 2020 Aalto University

Abitur / Higher Education (∅ 1.0) Jun. 2018 Michael-Ende-Gymnasium

Experience

Master Thesis 3D Human Pose Estimation Oct. 2023 – Jun. 2024 RWTH Aachen

DOM Core Student Worker Mozilla Corporation

Apr. 2023 – now

Advancing the #interop2023 effort for a better web by developing and maintaining web facing features in Firefox. Cooperating across institutions on web standards.

• C++ • JavaScript • HTML • Web Standards

Noise Simulation Software Project RWTH Aachen

Apr. 2022 – Sept. 2022 • 6 months

Optimized software by vectorizing computations and revising algorithm choice. Resulted in a faster execution (∼10x), fewer bugs and better code quality.

• Python • Numpy • Numba

Research Assistant High-Speed-Microscopy Fraunhofer IPT

Mar. 2021 – Jul. 2022 • 1 year 5 months

Developed the architecture and software of a parallelised C++ library for microscope control.

Improved the software architecture and fixed bugs, modernised the code, and implemented new features for faster scanning.

Designed the interface, implemented a Python wrapper, and integrated new hardware components.

• C++ • OpenCV • Python

Bachelor Thesis (1.0) Fraunhofer IPT

Feb. 2021 – Oct. 2021 • 9 months

Design of a plug-in deep learning library for the "Cell Culture Analysis Tool" using the example of embryoid bodies.

Implemented various computer vision models, preprocessing techniques, and consolidated them within a library.

Validated the software against the semantic segmentation of cellular structures, achieving an F1-Score of 0.82.

• Python • Keras • OpenCV

Tutor Formal Systems, Automata and Processes Apr. 2020 – Sept. 2020 RWTH Aachen

Projects

TTTStats

Jul. 2021 – Mar. 2023

Reactive single-page-application displaying statistics about a game played with some friends, see vinhill.github.io/TTTStats.

• Node.js • Express • Angular • MySQL • Jest • JavaScript