Daniel Vonk

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Experience

KDAB **London, England & Munich, Germany**
C++ Software Engineer *Nov 21–Feb 23*
A spin-out of the Linux *KDE* project, KDAB provides C++/OpenGL/Qt training and consulting services. During my time there, I consulted for firms in several different industries (e.g. in medical for a fluorochrome microscopy firm, in industrial for a multinational wind-power firm), where I helped clients upgrade their codebases to modern C++, resolve performance issues and engineer new features.

Nuance Communications [now Microsoft Corp.] **Aachen, Germany**
Internship *Sep 18–Sep 19*
Validating ML training-set data as well as e.g. writing BNF grammars for various NLP products for use in automotive sector.

Education

Technical University of Munich (TUM) **Germany**
Computer Science MSc. *Oct 23–*
- Focus on modules in machine learning (e.g. *Deep Learning*, *Deep Generative Models*) and systems software (HPC with *Turbulent Flow Simulation*, quantum (NAQC) compilers).
- Internship at the *Helmholtz-Hereon* centre on high-performance C++ software for neutron scattering physics simulations on supercomputers. My contributions included writing a hybrid CUDA+MPI scattering runtime, where I wrote CUDA kernels for physics algorithms plus used the TaskFlow and cuFFT libraries to beat the previous implementation's performance.
- EuroTeQathon 2024 competition: winner in Nature category. Our solution/prototype involved using machine learning to analyse satellite data to improve grazing efficiency in livestock farming. We presented our idea at *Ecole Polytechnique* in Paris in front of a an expert jury and audience.
- ATHENS Exchange at *Universidad Politécnica de Madrid* for a short course on linear algebra and approximation theory.

RWTH Aachen University **Germany**
Computer Science BSc. *Oct 17–Aug 21*
- Focus on modules in the computer graphics field.
- Bachelor's thesis entitled *Simulation of Realistic Crowds in Virtual Environments by Means of Influence Maps and Visitor Patterns*.
- Grade 2.3. German language of instruction.

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Utrecht University **Netherlands**
Advanced Functional Programming (Summer School) *Jul 23*

Skills

Systems: C++ *good knowledge of (modern) C++ language and library features as well as current design philosophies (e.g. preference for value-semantics, static over dynamic polymorphism).*
Scripting: Python *including ML-related frameworks (e.g. Pytorch, Scikit, Numpy, XGBoost)*
Tools: Git, CMake
Natural Languages: English (*native*), German (*C1*), French (*B1*)