

Michael Winkelmann

Software engineer and consultant with focus on user interfaces, 3D and graphics.

C++ • Qt • Rust • Python

michael@winkelmann.site • +4917645017730 • <https://winkelmann.site>

Experience and work history

10/2023 – Independant software consultant

- Consulting for customers to succeed with their software solutions
- Main focus on user interfaces for embedded and desktop environments, particulary with Qt
- Conducting workshops and trainings online and on customer site

09/2016 – 09/2023: The Qt Company GmbH

01/2023 – 09/2023: Principal Software Engineer

07/2018 – 01/2023: Senior Qt Advisor

09/2016 – 06/2018: Qt Advisor

- Helping customers to succeed with their Qt solutions
- Conducting workshops and trainings on customer site
- Working on various customer software projects
- Coaching and mentoring new colleagues

02/2016 – 10/2016: CR8TR GmbH

Managing Director and Software Developer

- Development of the software Omnidome for 360° immersive projections using C++11 and Qt under MacOS X and Linux
- Development of display server hardware
- Creation of audio reactive 360° content using GLSL shaders
- Writing business plans

07/2015 – 04/2016: DISDAR GmbH

Software developer

- Frontend development for the Invoicing App Semdo using AngularJS and JSData
- Optimization und Maintenance of the machine learning and OCR pipeline on AWS
- Ground truth validation app for the machine learning pipeline
- Writing unit tests

09/2014 – 06/2015: BigRep GmbH

Head of Software

- Firmware development and development of a stepper motor controller for FDM printers using C/C++
- Development of a build system for C/C++ on embedded systems (primarily Atmel and ARM processors) using CMake
- Conception and supervision of the development of a user interface for printer control using Qt
- Establishment of a deployment infrastructure with Aptitude and Debian packages
- Training of colleagues in marketing and support departments
- Interdisciplinary exchange and collaboration with electronics and mechanics departments

03/2013 – 06/2014: Fraunhofer Heinrich Hertz Institute

Student worker in video coding department

- Experiments with different deep learning frameworks for emulating the subjective video quality measurement

04/2010 – 10/2012: Fraunhofer Heinrich Hertz Institute

Student worker in video streaming department

- Writing tests for complex software modules in C++
- Programming of shell and python scripts for automatized treatment of video sequences
- Presentations und technical demonstrations on the IBC Amsterdam and MPEG meeting

Education

2011 – 2014: MSc Computer Science, Technische Universität Berlin

Master thesis: “Slicing for Fused Deposition Modeling”

supervised by Prof. Dr. Marc Alexa, Grade 1.0

2007 – 2011: BSc Computer Science, Universität Potsdam

Bachelor thesis: 06/2011: “Adaptive HTTP Streaming using Scalable Video Coding”

supervised by Prof. Dr. Klaus Rebersburg, Grade 1.3

Miscellaneous

07 – 09/2019	Traveling through Russia to Japan via train
06 – 08/2014	Traveling through South America
05/2013	Host in the radio show Chaosradio (episode 190) on “3D printing for everybody”
2012 –	Member of Chaos Computer Club
2006/08	Research internship at Fraunhofer Institut für Rechnerarchitektur und Softwaretechnik
05/2006	4th price for 42th federal contest “Jugend forscht”