

# DR. BENEDIKT KLEINMEIER



Computer scientist / Passion for good software / Interested in hardware and physics

## CONTACT

- ✉ kleinmeier.benedikt@gmail.com
- 🏠 Projects
- 🐙 Github
- 📄 Publications

## SKILLS

### Programming languages

Assembler (x86, TriCore)

Bash

C

C++

C#

Java

JavaScript

Python

### Markup languages

HTML/CSS

LaTeX

### Operating systems

Linux

MacOS

Windows

### Software and tools

Visualization

(e.g. matplotlib, gnuplot, ...)

Data handling/analysis

(e.g. numpy, pandas, ...)

Docker

Office

### Process models

ISO26262, Scrum, V model

### Development techniques

Continuous integration, test-driven development

### Languages

German

English

## AWARDS

- 🏆 **2019**  
TUM Graduate School Internationalization Grant
- 🏆 **2010**  
Nomination scholarship program I.C.S.
- 🏆 **2004**  
Best graduate junior high school

## WORK EXPERIENCE

📅 since 07/2021

📍 Infineon Technologies AG, Neubiberg

Principal software engineer for in-house and customer tools

- SDK and GUI development (PyQt) of radar applications to configure radar sensors, acquire and visualize data.
- Improving an Eclipse-based application to operate lab equipment and to manage cryptographic keys.
- Development of a Python-based workflow engine including a web dashboard to automatically process customer orders.
- Development of a GUI application (Swing) to control SPICE simulators and to examine simulation results.

C++ Java Python GUI PyQt Eclipse/SWT plotly/dash

📅 12/2017 - 05/2021

📍 Hochschule München / Technical University Munich / University of Sussex, Munich / Brighton

PhD

- Modeling and simulation of pedestrians and their behavioral changes.
- Implementation and simulation in our own open-source simulator Vadere ([www.vadere.org](http://www.vadere.org)).
- GUI programming in Java and data analysis using Python with a focus on test-driven development and continuous integration.

Java Python JUnit pandas matplotlib GUI

📅 05/2015 - 11/2017

📍 Infineon Technologies AG, Neubiberg

Expert firmware developer

- Development of bootstrap loaders and startup code for various microcontrollers in C.
- Establishing systematic unit testing to meet ISO 26262 requirements.

C Python Ceedling

## STUDIES

📅 10/2012 - 01/2015

📍 Hochschule München, Munich

Computer science (M.Sc) — embedded systems focus

- Master thesis at Fraunhofer ESK: Development of a software solution for highly accurate time and position detection for Car2X scenarios
- Focus: Driver development under GNU/Linux in C

C C++

📅 10/2008 - 09/2012

📍 Hochschule München, Munich

Computer science (B.Sc)

- Bachelor thesis at Infineon Technologies AG: Development of an evaluation tool for barometric air pressure sensors
- Focus: Firmware development for 8- and 16-bit microcontrollers in C and PC software in C#/.NET

C C# .NET

## ACTIVITIES BEFORE STUDIES

03/2008 – 09/2008

SEP AG (backup software), Weyarn

Support staff

- Setting up test environments (Windows, GNU/Linux), software testing, maintaining user documentation.

GNU/Linux

Windows

Documentation

03/2007 – 11/2007

Caritas St.-Anna-Haus, Holzkirchen

Community service worker in retirement home

- Nursing and housekeeping

## SCHOOL

2004 – 2006

Technical secondary school and vocational secondary school, Bad Tölz

Focus: Economy and management

Two internships: local bank (departments: human resources, accounting, credit) and district office Miesbach

2000 – 2004

Junior high school, Miesbach

1994 – 2000

Elementary school, Weyarn

## PUBLICATIONS

Peer-Reviewed journal articles:

- Benedikt Kleinmeier, Gerta Köster, and John Drury. “Agent-Based Simulation of Collective Cooperation: From Experiment to Model”. In: *Journal of the Royal Society Interface* 17 (171 2020), p. 20200396. ISSN: 1742-5662. DOI: 10.1098/rsif.2020.0396. URL: <https://arxiv.org/abs/2005.12712>
- Benedikt Kleinmeier et al. “Vadere: An Open-Source Simulation Framework to Promote Interdisciplinary Understanding”. In: *Collective Dynamics* 4 (2019). DOI: 10.17815/CD.2019.21

April 25, 2025



Benedikt Kleinmeier

## HOBBIES

Freestyle football

Football

GNU/Linux

Mnemonotechnics

Playing the piano

Music

Mountainbiking

Hiking

## MY PHILOSOPHY

- Joy of learning: That's why I have been learning to play the piano autodidactically.



- Work-life balance and nature: For this reason, I have crossed the alps with my mountain bike.

