BENEDIKT KLEINMEIER

Computer scientist with a passion for good software and an interest in hardware and physics.

CONTACT

kleinmeier.benedikt@gmail.com
@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, Scum, 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
Senior software engineer verification & automation

- Development of an application including GUI to control SPICE simulators.
- Automated verification of simulation results against specification.

C++ | Java | Python | Perl | GNU/Linux | GUI

12/2017 – 05/2021
Hochschule München / Technical University Munich, Munich
PhD

- Modeling and simulation of pedestrians and their behavioral changes.
- Implementation and simulation in our own open-source simulator Vadere (`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

March 30, 2022

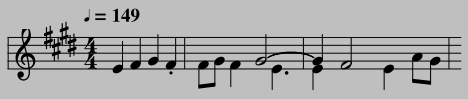
Benedikt Kleinmeier

HOBBIES

Freestyle football | Football | GNU/Linux | Mnemotechnics | 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.