

JÜRGEN BURIN, MSc PhD

Analysis, Modeling and Abstraction Engineer for Electronic Systems



Creative analog/digital circuit designer and low-level programmer with several years of experience. Profound knowledge in Informatics, Electrical Engineering and Physics. Ability to analyse complex tasks, create meaningful abstractions and communicate these efficiently to non-experts.

EXPERIENCE

08/2025 – 02/2023
Silicon Carbide Particle Detector Developer
📍 Austrian Academy of Sciences, Institute of High Energy Physics, Vienna

- Technology Computer Aided Design (TCAD) Simulations
- Development and Evaluation of Detector Layouts
- Representation in International Collaborations (CERN)
- Supervision of Master/PhD Students

02/2023 – 02/2022
Analog Circuit Designer
📍 Benedict GmbH, Department of Electronic Design, Vienna

- Conceptualization of Analog Control Circuits
- Check of Design and Product Constraints
- Functional Verification in SPICE and Lab
- Coordination with in-house Test Department

12/2021 – 09/2015
Abstraction and Model Developer
📍 TU Wien, Embedded Computing Systems Group, Vienna

- Analog and Digital Circuit Simulation and Model Building
- Automation of Simulation and Verification Tasks
- Master Course Teaching and Supervision of Students

EDUCATION

01/2022 – 10/2015
PhD in Computer Science
📍 TU Wien, Vienna
Dissertation: "Proper Abstractions for Digital Electronics Circuits: A Physically Guided Approach"

04/2016 – 10/2013
MSc in Microelectronics and Photonics
📍 TU Wien, Vienna
graduated with distinction

10/2014 – 09/2011
MSc in Computer Science
📍 TU Wien, Vienna
graduated with distinction

PERSONAL STRENGTHS

precise self-reliant automate and optimize tasks abstract thinking

creative adamant curious autodictatic tenacious honest

ACHIEVEMENTS, HONOURS AND AWARDS

🏆 Best Distance Lecture Award 2021, TU Wien

🏆 multiple excellence scholarships (Windhag foundation, Faculty of Informatics)

CONTACT

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🌐 Jürgen Burin

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SKILLS

Programming

C/C++ ●●●●●●●●
LaTeX ●●●●●●●●
Python ●●●●●●●●
VHDL ●●●●●●●●
Bash ●●●●●●●●
SQL ●●●●●●●●
Assembler ●●●●●●●●
Makefile ●●●●●●●●
HTML/JavaScript ●●●●●●●●

Operating Systems

Linux ●●●●●●●●
MacOS ●●●●●●●●
Windows ●●●●●●●●

Software & Tools

Visualisation ●●●●●●●●
(e.g. pgfplots, TikZ, matplotlib, ...)
TCAD ●●●●●●●●
QuestaSim ●●●●●●●●
HSPICE/LTSPICE ●●●●●●●●
Git ●●●●●●●●
Data analysis ●●●●●●●●
(e.g. numpy, scipy, pandas, ...)
Office ●●●●●●●●

Lab Equipment

Power Supply ●●●●●●●●
Oscilloscope ●●●●●●●●
Soldering Iron ●●●●●●●●

Languages

German (native) ●●●●●●●●
English ●●●●●●●●
Spanish ●●●●●●●●

INTERESTS

Voluntary Fire Fighters

Repairing Domestic Appliances