

Marvin Borner (21)

https://marvinborner.de

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EDUCATION

- **Eberhard Karls Universität** Tübingen
Bachelor of Science in Cognitive Science Racket Java C++ R MATLAB Idris Python LaTeX 2021 – 2024
- **Robert Bosch Schule** Ulm
Technical Gymnasium with specialization in Computer Science (Abitur) C# ASM SQL 2018 – 2021

WORK EXPERIENCE

- **Department of Computer Science – Software Engineering** Tübingen
Student Compiler Engineer Scala Effekt LLVM JS 12.2023 – Present
- **ML Cloud** Tübingen
Student Software Developer Python JS SQL Docker 03.2023 – 11.2023
 - **Full-stack development:** Django-based interface for user, group, and HPC resource management.
 - **Tool integration:** Integrated SLURM, LDAP, Grafana, and Request Tracker.
 - **Energy optimization:** Conducted analyses to reduce HPC energy consumption.
 - **Collaboration:** Joint project of *Tübingen AI Center, Max Planck Institute for Intelligent Systems, Institut für Theoretische Physik Tübingen, and AG Bethge.*
- **Department of Computer Science – Database Systems** Tübingen
Teaching Assistant Racket 10.2022 – 02.2023
 - **Tutoring:** Taught *Praktische Informatik 1: Deklarative Programmierung* to first-year students.
 - **Grading:** Graded exercise sheets and exams.
- **Eaglefit GmbH** Langenau
Software Consultant 09.2021 – 09.2022
Web Developer PHP JS 12.2017 – 02.2018

OTHER EXPERIENCE

- **Jugend Hackt** Berlin, Hamburg, Ulm
Participant in hackathons VueJS SQL PHP Kotlin 2017 – 2021
 - **JugendHacktApp:** Progressive web application for event management, account-based registration and communication within the Jugend Hackt community.
 - **BlindEye:** Android application for navigation advice for people with visual impairment.
 - **Personal Security Agency:** Web application for analyzing the personal online presence with the aim of illustrating data monopolies.
- **Austrian Data Hero Competition** Wien
Submission in the category "Talents" SPARQL JS 2020
 - **Subsidiary Browser:** Interactive graph of monopolistic companies and their subsidiaries.
- **Federal Competition of Artificial Intelligence (BWKI)** Tübingen
Participant as part of a team Python 2019
 - **Deception Detection:** Detection of lies and deception with the help of machine learning by analyzing text, video and audio data.
- **Various programming competitions** Online, Karlsruhe, Hamburg
Advent of Code, Project Euler, Kattis, GPN21 kitctf, Potluck CTF Python C 2018 – Present

SOFTWARE PROJECTS

- **Melvix:** Operating system with preemptive multitasking for x86 32-bit computers written from scratch. Includes self-written drivers for keyboard and mouse, network, framebuffer graphics, paging, and hard disk. C NASM
- **SegelBoot:** Bootloader for x86 32-bit computers written from scratch. C NASM
- **Bruijn:** Programming language based on pure lambda calculus. Uses self-written multi-threaded reduction strategies based on abstract machines derived from current research. Haskell
- **Birb:** Esoteric programming language that only consists of bird emojis (combinatory logic) Haskell
- **BLoC/BLoCade:** File format, optimizer, and targeted compiler for programs encoded in binary lambda calculus. C