GUNTHER BIDLINGMAIER

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https://github.com/gbid

WORK EXPERIENCE

Researcher at the Chair of Algorithms and Complexity, TU Munich *2021 - 2023*
▷ Designed, implemented and analyzed a greedy algorithm for a fundamental scheduling problem, simplifying understanding and implementation compared to previous solutions. Reduced the running time from $\mathcal{O}(n^3 d^3)$ to $\mathcal{O}(nd)$.
▷ Taught a Bachelor's course on Probability Theory and a Master's course on efficient algorithms and data structures.
▷ Rust | Discrete Optimization | LaTeX | Teaching

Working student at BMW AG *April 2018 - March 2019*
▷ Worked on a Web platform providing a unified API to data endpoints within BMW IT systems
▷ Implemented user verification by interfacing with the BMW LDAP system
▷ Programmed multiple Web applications within this platform (600 internal users)
▷ Ticket based, agile work in an international, distributed developer team
▷ JavaScript | TypeScript | Node.js | React.js | GraphQL | Apollo | Python | MongoDB | Git

EDUCATION

M.Sc. Computer Science at Technical University of Munich *2017 - 2020*
▷ Final grade: 1.1
▷ Relevant coursework: Advanced Algorithms and Data Structures,
  Formal Methods, Algorithmic Game Theory

Erasmus stay at Chalmers University of Technology, Gothenburg, Sweden *winter term 2017/18*
▷ Relevant coursework: Programming Languages, Dependent Types (Agda)

B.Sc. Information Systems at Technical University of Munich *2014-2017*
▷ Final grade: 1.4 (top 5% of students)

Abitur at Ellentalgymnasien, Bietigheim-Bissingen *2014*
▷ Final grade: 1.8

SELECTED PROJECTS

Generic Tactic Tracing in Isabelle
▷ Extended the Proof Assistant Isabelle to trace and hierarchically display all invocations
  of rewrite rules in the simplification engine's core
▷ Codebase of more than 200,000 lines of Standard ML code
▷ Standard ML | Scala | Formal Methods

iOS practical
▷ Developed an iOS App for assisting ZEISS AG service workers when installing machines on-site
▷ Development in a team of 7 using scrum methodology
▷ iOS | Swift | Python Flask | Git | Scrum

TUM: Junge Akademie project dare2share
▷ Conceived and implemented an umbrella sharing system for the campus
  Garching Forschungszentrum (25000 students/employees) in an interdisciplinary student team
▷ Tracked 250 umbrellas using 10 Raspberry Pis and Bluetooth beacons
▷ Linux | Python | Git | Project Management

LANGUAGES

German: native | English: fluent | Latin: Großes Latinum

SELECTED ACTIVITIES AND AWARDS

▷ Scholarship program TUM: Junge Akademie *2016 - 2017*
▷ Symphony orchestra Junge Münchner Symphoniker *2014 - 2023*