



Nikolai Madlener

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EDUCATION

- Technical University of Munich** October 2021 – December 2023 (expected graduation)
Master of Science in Informatics (Computer Science) Munich, Germany
- Focus on Software Engineering, Machine Learning and Distributed Systems
- Technical University of Munich** October 2017 – June 2021
Bachelor of Science in Informatics (Computer Science) Munich, Germany
- Minor: Economics | Bachelor Thesis: "How to Build on Top of an Existing Software-System"

EXPERIENCE & INTERNSHIPS

- ALEAS AG** July 2019 – Present
Software Engineer (Working Student) Ruggel, Liechtenstein
- Full stack web application development with .NET for internal and user-facing software with 2500+ active users
 - Development of a cross-platform team-challenge app with React Native and the Firebase platform
- Technical University of Munich, Digital Health Group** October 2021 – Present
Software Engineer (Academic Assistant) Munich, Germany
- Development of a navigation iOS app that improves users' fitness and health by supporting multimodal routing
 - Improved average route search performance by over 50%
- Tesla, Inc.** March 2021 – April 2021
Logistics Software System Configuration (Internship) Grünheide, Germany
- Initial configuration of the material flow software system for intralogistics at the Tesla Giga Berlin factory
 - Requirements engineering and architectural conception based on exchange with material flow planners
 - Close exchange with software engineers of US-team and technical support for logistics workers on site

PROJECTS & EXPERTISE

- encore. App** | *Swift, SwiftUI, Spotify SDK, REST* May 2020 – Present
- Development of an iOS app that allows users create music parties with friends
 - Participants of a party can add and vote for songs in a shared music queue
- Ferienakademie 2022 – "Decentralized Decision Making"** | *Swift, SwiftUI, MQTT/Coaty* September 2022
- Research summer school in cooperation with Siemens for selected students aimed at exploring innovative ideas
 - Development of a self-organized robot delivery system with focus on decentralized decision making
 - Built an iOS app that visualizes the robots' status/location in realtime using a message-oriented architecture
- Swift Tutor** | *Swift, SwiftUI, UIKit, Vapor, UML* 2020, 2022
- Taught iOS development to 70 students at the Swift bootcamp of the practical university course 'iPraktikum'
- TUM Campus App Contributions** | *Swift, SwiftUI, WidgetKit, REST* December 2021
- Extension of the open source TUM Campus app with daily meal plan iOS homescreen widgets for 10+ cantinas

EXTRACURRICULAR EXPERIENCE

- HackaTUM 2022 Overall Winner** November 2022
- Overall winner of HackaTUM 2022, one of Europe's biggest hackathons, out of 220 teams (800 participants)
 - Winner of the Sixt Challenge out of 20 teams
- MINGA Mentor** August 2022 – Present
Technical University of Munich (TUM) Munich, Germany
- Mentor for incoming exchange students to guide them during their time in Munich and at TUM

SKILLS

Programming Languages: Swift, TypeScript, Java
Frameworks: SwiftUI, React Native, .NET, Spring, Coaty (MQTT)
Tools: Git, Docker, Firebase, Xcode, VS Code, Bamboo, Testflight