Nikolai Madlener

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EDUCATION

Technical University of Munich   October 2021 – December 2023 (expexted 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 perfromance 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 cooparation 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-ortiented 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 incomming 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