



# Nikolai Madlener

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## EDUCATION

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- Technical University of Munich** October 2021 – May 2024 (expected graduation)  
*Master of Science in Informatics (Computer Science)* Munich, Germany
- Focus on Software Engineering, Machine Learning and Distributed Systems
- Peking University** February 2023 – July 2023  
*General Visiting Student (Semester abroad)* Beijing, China
- Co-organized and spoke at PKU's first Exchange Cafe about LLM's and ChatGPT
- 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

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- 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

## PROJECTS & EXPERTISE

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- 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
- 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 & AWARDS

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- MINGA Mentor** August 2022 – February 2023
- Mentor for incoming exchange students to guide them during their time in Munich and at TUM
- HackaTUM 2022 Overall Winner** November 2022
- Overall winner of HackaTUM 2022, one of Europe's biggest hackathons, out of 220 teams (800+ participants)
  - One of the two winning teams of the Sixt Challenge (out of 20 teams)

## SKILLS

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**Languages:** German, English (C1), Chinese (HSK1)  
**Programming Languages:** Swift, Java, TypeScript, Go  
**Frameworks & Tools:** SwiftUI, React Native, Spring, Coaty (MQTT), Firebase, Docker, Git, VS Code, XCode