

Felix Maximilian Schlegel

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Work Experience

Software Engineer Intern, *Apple Inc., London, United Kingdom* May 2023 — Present

- Developed and maintained open-source networking libraries and frameworks in Swift as part of the Apple Cloud Services Team

Undergraduate Researcher, *Fraunhofer AISEC, Munich, Germany* Dec. 2022 — Mar. 2023

- Research Topic: Enhancing LLVM-based memory safety and control-flow integrity (CFI) mechanisms through static analysis
- Evaluated control-flow integrity (CFI) compiler passes for LLVM by running benchmarks and coming up with new criteria quantifying the effectiveness of different CFI mechanisms

Google Summer of Code 2022, *Project Partner: Swift / Apple Inc.* May 2022 — Oct. 2022

- Built an open-source Apache Kafka client package for Swift using Swift, C and Docker
- Designed and developed a public API that leverages Swift's asynchronous programming features
- Documented the development process in the Swift Forums and discussed changes with community members

iOS Engineer (Part-time), *Vectornator by Linearity GmbH, Berlin, Germany* Aug. 2021 — Sep. 2022

- Created the in-app tutorial feature for iOS and macOS using Swift and UIKit
- Enhanced loading times for images and tutorial data by leveraging multi-threading and caching
- Maintained the internal OpenAPI client package handling all in-app network requests

Education

B.Sc. Computer Science, *Technical University of Munich, Germany* Oct. 2020 — Present

- Relevant Courses: Programming in Java, Networking & Distributed Systems, Data Structures & Algorithms, Computer Architecture, Operating Systems
- Projects on low-level optimisation (C, SIMD) and iOS Development
- Teaching Assistant for iOS Development Course (Swift, SwiftUI)

High School Diploma, *Schiller Schule, Bochum, Germany* Aug. 2012 — Jun. 2020

- Majored in Mathematics and English, member of Computer Club

Year abroad, *St Edmund's School, Canterbury, UK* Sep. 2016 — Jul. 2017

- Member of 1st Tennis Team, playing the trumpet in Big Band

Projects and Awards

WWDC19 Scholarship, *Apple Inc., San Jose, CA* Jun. 2019

- Created an Augmented Reality application visualising San Francisco International Airport in Swift Playgrounds ([Link to demo](#))

WWDC18 Scholarship, *Apple Inc., San Jose, CA* Jun. 2018

- Created an interactive 2D beach volleyball game in Swift Playgrounds ([Link to demo](#))

Volunteering

Youth Hackathon Mentor, *Jugend hackt by Open Knowledge Foundation* Oct. 2021 — Dec. 2022

Jugend hackt is an event where secondary school students learn to program and participate in a student hackathon. As a mentor, I answered programming questions and helped student teams build their prototypes.

Skills

Programming Languages: Swift, Java, C, OCaml

Tools & Technologies: Docker, Apache Kafka, Linux, Xcode, Vim, Git