

# Bilal Reffas

SENIOR SOFTWARE ENGINEER

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## Experience

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### Bosch eBike

Stuttgart, Germany

SOFTWARE ENGINEERING MANAGER

Mar. 2022 - Present

- Leading the CoreBLE team remotely which is a distributed software engineering team in European timezone.
- With the goal to maintain and further develop the Bluetooth interface of the eBike. The responsibility of the interface is starting from eBike towards the smartphone and 3rd party wireless components. The team is responsible for the communication stack on the smartphone and on the eBike. Important features like OTA, navigation streaming are relying on this interface.
- The modules are written in multiple programming languages Swift, Kotlin, Java and C++ depending on the corresponding platform.
- Furthermore, the job also includes meeting key milestones for component production and communicating with external partners for joint development milestones.

### Bosch eBike

Stuttgart, Germany

SENIOR SOFTWARE ENGINEER

Dec. 2019 - Feb. 2022

- Design of a few wireless communication protocols event bus, streaming and large chunk based.
- Implementation of pure communication protocols using Swift
- Responsible for the module with underlying features like FOTA, Lock and general communication bidirectional towards the eBike.
- Maintaining the module, fixing several leaks using the memory graph and improving documentation.
- Supporting multiple feature teams how to use the module for making several features possible.
- Release of the new eBike platform called "smart System" together with the eBike Flow App see here.

### Byton

Munich, Germany

SOFTWARE ENGINEER

Mar. 2019 - Dec. 2019

- Working on keyless entry using Swift, CoreBluetooth, CoreLocation, iBeacons.

### Technical University of Applied Sciences Gießen

Gießen, Germany

STUDENT ASSISTANT

Apr. 2018 - Mar. 2019

- Conducting bachelor course and presenting lectures in web programming (TypeScript).
- Participating in the Institute for Information Sciences.

### Deutsche Telekom AG

Darmstadt, Germany

MACHINE LEARNING INTERN AND SOFTWARE ENGINEERING APPRENTICESHIP - IOS ENGINEER

Sep. 2014 - Oct. 2018

- Created a http classification model. Maintained the online manager iOS app.
- Improved performance and fixed a few memory leaks and created the watchOS App.

## Education

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### Technical University of Applied Sciences Gießen

Gießen, Germany

B.S. IN SOCIAL MEDIA SYSTEMS WITH A FOCUS ON COMPUTER SCIENCE

Apr. 2017 - Dec. 2019

- CS2356 Machine Learning CS1017 Algorithms and data structures CS2353 Efficient algorithms and their application MN1007 Discrete mathematics CS2349 Category theory for computer scientists CS2350 Generic programming CS1021 Software engineering etc..

## Projects

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### Open Source EmojIntelligence

Germany

EMOJINTELLIGENCE SWIFT PLAYGROUNDS 1300 STARS ON GITHUB.

Apr. 2017

- EmojIntelligence is an implementation of a neural network using Swift Playgrounds.
- After the training phase it is able to predict the emoji from drawn sketches.

## Honors & Awards

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2015/17 **WWDC Scholarship Apple Inc.**, Selected several times as a WWDC scholar

San Francisco, USA

2015-18 **Won several Hackathons**, AI Hackathons etc

Germany

## Extracurricular Activity

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2017 **Presentations AI Meetup**, Neural Networks, Deep Learning, Natural language processing and CoreML

Frankfurt, Germany

2017 **Admin Open Swift Community**, Biggest German speaking community about Swift programming language

Germany