

# Kaan Keskinsoy

Computer Science and Media B.Sc.



## Contact

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## Languages

German (mother tongue)  
Turkish (mother tongue)  
English (fluent)

## Hobbies

Weight training  
Cooking

## Skills

### Programming Languages

Java · TypeScript



C · C++ · Clojure



### Databases

SQL · MongoDB · Redis



### Web Technologies

Node.js · Express.js · Angular



HTML · CSS/SCSS



Spring Boot · Docker



### Mobile App Development

Android · Ionic



### Machine Learning

Scikit-Learn · Pandas · Gensim ·  
Tensorflow · Keras



## Education

### Hochschule der Medien

Stuttgart

Computer Science and Media (Master of Science)

03/2019 - Today

### Hochschule der Medien

Stuttgart

Computer Science and Media (Bachelor of Science)

Final grade: 1.3 (Total average grade: 1.9)

Thesis: Android Mobility Detection Library (budo GmbH)

03/2014 - 03/2019

### Universität Stuttgart

Stuttgart

Computer Science (Bachelor of Science)

10/2013 - 02/2014

### Staatliche Feintechschule

Villingen-Schwenningen

General higher education entrance qualification

Major subject: Information technology

09/2010 - 07/2013

## Work Experience

### M-Way Solutions GmbH

Student trainee

Full Stack development

03/2017 - 03/2018

Development of B2E Web Apps:

- Client- and server-side development based on frameworks
- Design and implementation of user interfaces
- Development and consumption of REST interfaces
- Development of Unit- and E2E-tests
- Development of CLIs based on Node.js
- Deployment, operating and maintaining of Web Apps

Technologies:

Angular · Ionic · TypeScript · Node.js · RxJS · SQL · Protractor · Jasmine · Karma · Docker ·  
HTML · CSS/SCSS · JIRA · Git

### M-Way Solutions GmbH

Practical semester

Web App development

09/2016 - 03/2017

Development of B2E Web Apps:

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## Projects

### Smart Penguins

2019

Development of a Car2x system for the prevention of traffic accidents based on a Bluetooth LE mesh network:

- Implementation of an Android app for exchanging BLE messages with the mesh network
- Implementation of the mesh network for the transmission of BLE messages
- Implementation of the early warning system on current traffic events
- Dockerization of the software environment for consistent working environment and continuous integration

Technologies:

C++ · nRF52 Development Kit · Android · NordicSemiconductor Android-BLE-Library · Docker

### Next Search

2019

Cloud based development of a scalable search application for compressed content rendering of web pages:

- Design and implementation of the cloud architecture
- Design and implementation of the web application
- Processing and aggregation of website content through Cloud Functions
- Caching of compressed contents
- Access Management of different Cloud Providers

Technologies:

Node.js · Angular · TypeScript · HTML · CSS/SCSS · Bing Search API · Google Cloud Functions · IBM Cloud Object Storage

### Easy Grow

2019

Development of an automatic irrigation system for plants based on the Wi-Fi microchip ESP8266:

- Design of the circuit and implementation of the logic
- Development of the web application for remote control
- Interaction possibilities via the hardware interface or the web application via a home network
- Implementation of WiFi specific functions using Espressif IoT Development Frameworks
- Dockerization of the software environment for consistent working environment and continuous integration

Technologies:

C · ESP8266 RTOS SDK · Espressiv IoT Development Framework · lwIP Netconn API · HTML · CSS · Docker

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## Projects

### Android Mobility Detection Library

2018

Development of an Android library for monitoring locations precisely and energy-efficiently, using smartphones' sensors, context information, and recognition of motion patterns:

- Data capturing and analysis of measurements for recognizing of motion patterns
- Analysis and optimization of power usage and the quality of monitoring through Geofences, motion patterns, network and charging informations
- Design and development of the architecture for using the library in multiple applications simultaneously

Technologies:

Android · Geofencing API · Fused Location Provider API · Batterystats · JavaScript · Angular · Chart.js

### Autonomous Shuttle

2018

Drafting of an shuttle service for passenger transportation:

- Conceptual working in interdisciplinary teams
- Design and development of a web service architecture
- Design of an interactive ride through interest matchings and emotion recognition of the passengers
- Developing a booking system
- Interest matching through tagging publicly available pictures of the passengers' Instagram accounts
- Developing a facial recognition feature for authentication of rides and recognizing emotions of the passengers

Technologies:

Node.js · Express.js · MongoDB · Mongoose · Angular · TypeScript · RxJS · HTML · CSS/SCSS · Bootstrap · Docker · Watson Text to Speech · Kairos Face Recognition API · Instagram API · Google Cloud Vision API

### Billtracker

2018

Development of native applications in Android and iOS for saving and synchronizing of receipts in firebase:

- Design and implementation of the firebase database and storage
- Design and implementation of the Android and iOS user interfaces
- Consuming of the firebase database and storage for the synchronization of the data and receipts
- Using the Android Camera API and AVFoundation for retrieving pictures
- Managing the locally saved documents in the file systems

Technologies:

Android · Swift · Firebase Realtime Database · Firebase Storage · Firebase Authentication · Android Camera API · AVFoundation

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## Projects

### Crypto Currency Tracker

2018

Development of a Web App for comparing crypto currencies:

- Using functional programming language Clojure
- Generating HTML through Clojure library Hiccup
- Consumption of the 'CryptoCompare' API for retrieving currency rates
- Processing of the currency rates through Clojure
- Representing the currency rates visually through clj-xchart

Technologies:

Clojure · Leiningen · Luminus · Compojure · Hiccup · clj-xchart · Bootstrap · CSS

### WatchIt

2017

Development of a responsive Web App for retrieving movie and series information:

- Design and development of a web service architecture
- Design and implementation of an interactive and responsive web UI
- Consumption of 'The Movie Database' API
- Extending the web service enabling users to create accounts, save and edit watch and favorite lists

Technologies:

Node.js · Express.js · MongoDB · Angular · TypeScript · RxJS · HTML · CSS/SCSS · Bootstrap · Docker

### Cap'n Can Webshop

2017

Development of a web shop

- Design and development of a web service architecture
- Design and implementation of an interactive and responsive web UI
- Administrative view for maintenance of the product line
- Implementation of the shopping cart and the booking process
- Implementation of sessions
- Prevention of security threats as XSS, XSRF, and SQL injections
- Using of SSL/TSL encryption

Technologies:

Node.js · Express.js · MongoDB · Mongoose · Angular · TypeScript · RxJS · HTML · CSS/SCSS · Bootstrap · Docker · Karma · Jasmine

### PrivateEye

2017

Development of mobile measuring stations for capturing environmental data and visualizing those in a Web App:

- Design and development of a web service architecture
- Design and implementation of an interactive and responsive web UI
- Implementation of data exchange between embedded devices and web service
- Implementation of visual representation of the measuring stations' locations and environmental data

Technologies:

Node.js · Express.js · MongoDB · Mongoose · Angular · TypeScript · RxJS · HTML · CSS/SCSS · Bootstrap · Chart.js · Leaflet · OpenMapTiles