andreasoffenhaeuser
cloud solution architect

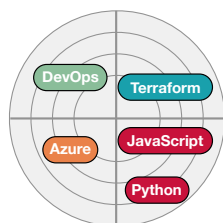## contact

Stuttgart, Germany
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web anoff.io
github gh/anoff
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languages

native german
professional english
beginner japenese, french

craftsmanship

♥ Node.js, JavaScript
Python, Matlab
bash, C
software design
system understanding
agile methods
continuous deployment

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domains

cloud solutions
automotive systems
robotics

experience

2016–

Solution Architect Robert Bosch GmbH, Stuttgart DE

Responsible for backend architecture of connected vehicle services. This includes designing cloud solutions according to domain driven principles as well as implementing features in our SCRUM team. I am familiar working with the Cloudfoundry PaaS stack for Microservices as well as designing and implementing Javascript based solutions on Microsoft Azure serverless components. Investing heavility into automation with Terraform my daily job lies somewhere between solution architect and software engineer.

aquired skills Node.js, OSS compliance, solution architecture, Cloudfoundry, Azure, Infrastructure as Code

2014–2016

Backend developer connected vehicle Robert Bosch GmbH, Stuttgart DE

Starting 2014 I was responsible for designing and developing a prototype system for a connected vehicle. In 2015 the project left prototype state and a larger team was built up to develop the system with a more mature state. I was involved in selecting the team members and defining the development processes. The complete technical chain from vehicle setup, backend, infrastructure to web frontend was my responsibility. I managed a team of up to five people and was lead developer for the backend system.

aquired skills Node.js, AngularJS, Docker, project management

2012–2014

Function developer for driver monitoring Robert Bosch GmbH, Stuttgart DE

Following my experiences as a test manager I switched sides and started developing algorithms for driver monitoring. This involved handling of larger data sets within Matlab and building a simulation environment capable of handling multiple thousands kilometers of test data to evaluate algorithm performance. With changing algorithms it was also necessary to develop new scoring functions. Development of series code was done according to automotive SPICE requirements. In 2013 I was also leading a 8 month project study with a german automotive OEM to identify the potential of new driver monitoring functions.

aquired skills statistics, data handling, requirements engineering, change management, Matlab, project management, ASPICE

2010–2012

Test manager for driver monitoring software Robert Bosch GmbH, Stuttgart DE

Responsible for planning automotive software tests from unit to system level. On system level I was also responsible for designing and implementing the test environment for hardware in the loop simulation of a automotive ECU. This had to be integrated into existing quality frameworks and comply with functional safety according to ISO26262.

aquired skills systems engineering, project management, vehicle communication (CAN/FlexRay), test methodology, CANoe, VBA

2009	**Internship - motorcycle hydraulic simulation**	Bosch Corporation, Yokohama JP

As part of my studies I accomplished a six months internship in Japan. My task was to create a simulation environment for motorcycle ABS systems. I had to collect requirements from different engineers, research motorcycle hydraulics and then develop a simulation with a user interface. The development was done in Matlab & Matlab Simulink.

aquired skills Matlab, systems engineering, fluid physics, GUI design

education

2017–2018	**Artificial Intelligence** Nanodegree	Udacity

Pursuing a deeper understanding of AI fundamentals I chose to join the nanodegree program and improve my knowledge in game agents, probabilistics and other AI methods. In my third term I specialized in computer vision methods.

2017	**Deep Learning** Foundation Nanodegree	Udacity

Intrigued and fascinated by the advances of artificial intelligence I wanted to get a deeper understanding of the topic and joined the class of Udacitys newly introduced Deep Learning program. Within the course I worked on several projects ranging from image recognition to generative networks.

2007–2010	**Bachelor** of Engineering, **1.3**	Hochschule Heilbronn, DE

With a grant from Bosch I studied different fields of mechatronics and microsystems engineering. For my thesis I analyzed the influence of advanced driver assistance systems on steering based driver monitoring systems. The main focus was on data analytics and combined Matlab with scientific knowledge.

2005–2007	**Vocational training**	Robert Bosch GmbH, DE

During my vocational training I learned the basics of engineering and how they relate to the physical world. The broad scope of topics covered in mechatronics also quickly made me realize my love for programming over the other possible fields in engineering.

interests

- learning new technologies (blockchain, artificial intelligence, robotics, deep learning)
- share & exchange knowledge on meetups/confs
- skiing, biking, diving
- cooking

side projects

A selection of my OSS projects. For more see my GitHub profile or website.

plantbuddy
A fullstack IoT solution to monitor plants. ESP8266 chip with device connectivity, serverless backend and a web frontend

demo one
3D graphics demo written in C++

deep emoji gan
An approach to use DCGAN neural networks to generate emojis

techradar
Framework to build custom technology radars, inspired by the Thoughtworks Radar

microllaborators
A distributed web app with serverless backend and augmented reality features.

serial-io
Node.js library to send serial commands with a promise based API