andreasoffenhaeuser

cloud solution architect

contact

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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

domains

cloud solutions
automotive tech
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 real job description 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. It was a fullstack job where I was resonsible to manage a team of up to five to set up servers, develop backend & frontend as well as the vehicle communication. 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.

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 there are 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. In 2009 I spent 6 months in Japan to develop a simulation environment for motorcycle brake systems during my internship. Apart from my bachelor thesis there was one bigger project (4 months) that had to be completed which centered around a 2-DOF robot system made up of three joint SCARA robots. The project combined programming in Matlab/Simulink with physics and geometry for robot control. For my thesis I analyzed the influence of advanced driver assistance systems on steering based driver monitoring systems. It was a very data anyltics heavy job and again 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. During the training two major projects had to be completed. The first one was the design and manufacturing of a adjustable power supply, the second was the construction of a 3 DOF assembly robot.

interests

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