

# Jan Fornoff | Curriculum Vitae

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## Education

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### MSc Business Information Systems

TU Darmstadt, Average grade 1.42

2016–2018

Master Thesis: “Evaluating Quality of Experience in Multipath TCP Applications on iOS Mobile Devices” (Graded 1.0)

- o Development of iOS application capable of running web applications over MPTCP
- o Design of network testbed allowing per-path network emulation and using real applications from the Internet
- o Conducting a user study while collecting extensive metrics and statistics for analysis

### BSc Business Information Systems

TU Darmstadt, Average grade 2.27

2011–2016

Bachelor Thesis: “Optimization and Evaluation of MPEG DASH Video Streaming by large-scale Network Simulation” (Graded 1.0 & nominated for the Datenlotsen award for outstanding theses)

### High school graduation (Abitur)

Berufliches Gymnasium Groß-Gerau, Average grade 1.5

2007–2010

Focused on Information Systems / Electrical Engineering, Intensive course: Maths

## Scientific publications

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### *QoE Analysis of DASH Cross-Layer Dependencies by Extensive Network Emulation*

Denny Stohr, Alexander Frömmgen, Jan Fornoff et al., ACM SIGCOMM 2016 (Workshop)

### *Capture and Replay: Reproducible Network Experiments in Mininet*

Alexander Frömmgen, Denny Stohr, Jan Fornoff et al., ACM SIGCOMM 2016 (Poster)

## Experience

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### Google

Software Engineer – Site Reliability Engineering

Zurich

Sep. 2019–present

- o Oncall and incident response for critical services
- o Reviewing, creating and implementing designs for resilient systems
- o Establishing and tracking SLIs / SLOs based on business goals
- o Interviewing and mentoring new Googlers

### Grandcentrix GmbH

Backend Systems Engineer (Remote)

Cologne

Oct. 2018–Sep. 2019

- o Elixir application development (OTP, Phoenix framework)
- o Extensive use of CQRS / Event Sourcing paradigms
- o Taking part in software architectural discussions
- o Load testing, profiling and fixing performance bottlenecks
- o Diagnosing and troubleshooting failures on live Kubernetes deployment
- o Participating in internal expert communities to advance engineering practices

### Grandcentrix GmbH

Working student Backend Development (Remote)

Cologne

Sep. 2017–Oct. 2018

### Software AG

Working student

Eberstadt

Oct. 2011–Sep. 2017

Development of internal web applications

- o Development of web applications for management of contracts
- o Automation of Non-Disclosure Agreement generation
- o Development of web application for creating dynamically configurable questionnaires
- o Integration with internal data and authentication APIs
- o Conception of a Docker-based deployment and application operation platform
- o Linux system administration, deployment automation & monitoring

## Software AG

*Obligatory internship for course of study*

**Eberstadt**

*Aug. 2011–Oct. 2011*

## Projects

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### University projects.....

#### Course project “IT project management”

**Invensity GmbH (Wiesbaden)**

Development of single-page application to collect customer feedback (AngularJS 1.x - Frontend, Laravel - Backend)

#### Course project “Creating Value through Data Science”

**Accenture Digital**

Analytics challenge with the goal of getting insights into the profession of Data Scientists.

- o Business case definition
- o Data preparation for analysis
- o Statistical data analysis and modeling
- o Development of prediction model
- o Data visualization
- o Presentation of results in front of experts from science and practice

### Personal side-projects.....

#### Chatbot for asynchronous stand-up meetings

**Meetup-Slides**

Development of Chatbot based on “Slack”, who conducts asynchronous stand-up meetings at user-defined times by direct message and posts the formatted results into a status chat room. (Elixir / OTP)

#### Chefkoch-Shopping

Experimental project to grasp Node.JS principles.

Captures a Chefkoch (cooking recipe site) recipe, crawls it for ingredients and allows adding them to a shopping list.

- o OAuth & REST API integration with Wunderlist
- o Crawling of recipe site for ingredients
- o Docker-based deployment
- o Express.JS on top of Node.JS

**More at <https://blog.janfornoff.com/projects>**

## Languages

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**English:** fluent (spoken and written)

**German:** Mother tongue level

## Technical skills

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### Programming languages.....

#### Advanced level:

- o C++
- o Python
- o Elixir
- o Elm
- o Ruby
- o HTML / JavaScript

#### Basics:

- o Go
- o Java
- o Scala
- o Assembler
- o Rust
- o Haskell
- o R

### Technologies.....

#### Tools:

- o Git
- o Docker
- o Kubernetes
- o Rancher
- o Gitlab CI

#### Frameworks:

- o Phoenix (Elixir)
- o Ruby on Rails
- o node.js / Express
- o Laravel

#### Storage:

- o PostgreSQL
- o MySQL
- o Redis
- o Memcached
- o RabbitMQ

#### Protocols:

- o HTTP-based adaptive bitrate video streaming (MPEG-DASH / HLS)
- o Network protocols (HTTP, TCP/IP, Multipath TCP)

## Technical areas of interest

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- o Web Technologies & Future Internet
- o System performance optimization (across abstraction boundaries)
- o Systems engineering & SRE
- o Big Data, Data Mining & Statistical Analysis

## Hobbys

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- o Sports
  - o Brazilian Jiu Jitsu
  - o Strength training
- o Cooking
- o Traveling and hiking