# **Thomas Gotwig**

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04.07.1991 in Viechtach

Date and place of birth

German

Nationality

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### Job

01.05.2020 – continuously

Full-Stack-Developer

Part-time

Student assistant at the MIG Uniklinik Frankfurt

01.07.2018 – 28.06.2019 Full-Stack-Developer Full-time Full time employee with limited contract at Arago GmbH

- Further development of an Elixir-based expert system engine (AI-System)
- Establishment of automated cluster deployments via Kubernetes under AWS
- Development of engine-specific performance tests under AWS with Python and Java
- Further development of an ontology in turtle format for JanusGrapph
- ❖ Further development of an existing React Front-End

01.10.2017 – 29.06.2018 Full-Stack-Developer Full-time

#### Bachelor project at Philipps University

Programming a system for analyzing gene neighborhoods via interactive web visualizations in Angular, D3, Node.js and Elasticsearch.

01.12.2016 – 29.09.2017 Front-End-Developer Part-time

#### Student assistant at the **Justus Liebig University**

- Implementation of various highly specific web widgets in HTML5 and JavaScript for the visualization of bacterial genome information
- Implementation of interactive standard diagrams using open-source JavaScript libraries
- Implementation of a D3.js-based synteny plot

## School & Study

11.03.2020 - continuously

**Master of Science** in High-Integrity-Systems at UAS Frankfurt

01.07.2013 - 25.10.2018

Bachelor of Science in Bioinformatics at THM Gießen

<u>Elective Modules</u>: Components and Frameworks, Genetic

Algorithms, Computer-Aided Drug Design, Introduction

to Molecular Modelling

01.08.2010 - 28.02.2013

State certified assistant for Information processing - technology at TLS Gießen

## **Expertise**

Programming Languages

JavaScript / Typescript, Python, Rust, Elixir, Java, R

Shell Languages

fish, bash, awk

Markup Languages

HTML, XML, YAML, LaTeX

Style Languages

CSS, SASS

Java Libraries Spring Boot, Springfox Swagger

Javascript Libraries Angular, Angular Material, D3, TippyJS, fontawesome,

VueJS, Quasar, ApexCharts, React, Bootstrap, Materialize,

JQuery, Lodash, Phylocanvas, Google Chart, Tooltip.io,

RxJS, Moment.js, Handlebars.js

Node.js Libraries Express, ESLint, Mocha, Socket.io, joi, Passport.js, JWT,

Jasmine, Protractor, Passport.js, Moment.js

Python Libraries Pandas, Numpy, scikit-learn, Keras, Tensorflow,

Jupyterlab, Matplotlib, Seaborn, Bokeh

Elixir Libraries Phoenix, Conform, Distillery

Databases SQL, Elasticsearch, MongoDB, JanusGraph, RedisGraph

Build Tools NPM, Pipenv, Webpack, Cargo, Distillery, Maven

Deployment Tools Docker, CircleCI, Jenkins, Kubernetes

Collaboration Tools Jira, Pivot Tracker

Cloud-Computing AWS CloudFormation & EKS, Digitalocean, GitHub Pages,

Firebase

Development Methods Scrum, Kanban

Sketching Draw.io, Affinity Photo & Designer, Adobe XD

Versioning Git, Github / Gitlab, Bitbucket

Operating Systems MacOS, Ubuntu, Alpine, Windows

Optimization Methods Evolutionary Algorithms

Recognition Algorithms Neural Networks, Expert-Systems

Bioinformatics DNA Analysis, EMBOSS, BLAST, SAMtools, Bowtie 2,

Bedtools 2, rpy2, Snakemake, PyMOL, MOE, ETE Toolkit