

# Thomas Gotwig

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## Job

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- 01.05.2020 – continuously  
*Full-Stack-Developer*  
*Part-time* Student assistant at the **Medical Informatics Group**
- ❖ Further development of an medical-register-system along with Java 8, Maven, JSF, PrimeFaces, Docker, PostgreSQL.
- 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 JanusGraph
  - ❖ Further development of an existing React Front-End

- 01.10.2017 – 29.06.2018 Bachelor project at **Philipps University**  
*Full-Stack-Developer* ❖ Programming a system for analyzing gene  
*Full-time* neighborhoods via interactive web visualizations  
in Angular, D3, Node.js and Elasticsearch.
- 01.12.2016 – 29.09.2017 Student assistant at the **Justus Liebig University**  
*Front-End-Developer* ❖ Implementation of various highly specific web  
*Part-time* 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

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- 11.03.2020 - continuously **Master of Science** in High-Integrity-Systems at UAS  
Frankfurt
- 01.09.2013 – 25.10.2018 **Bachelor of Science** in Bioinformatics at THM Gießen  
Elective Modules: 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

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- Programming Languages* JavaScript / Typescript, Python, Rust, Elixir, Java, R  
*Shell Languages* fish, bash, awk  
*Markup Languages* HTML, XML, YAML, LaTeX

<i>Style Languages</i>	CSS, SASS
<i>Java Libraries</i>	Spring Boot, Springfox Swagger, JSF, PrimeFaces
<i>Javascript Libraries</i>	Angular, Angular Material, D3, TippyJS, fontawesome, VueJS, Quasar, ApexCharts, React, Bootstrap, Materialize, JQuery, Lodash, Phylocanvas, Google Chart, Tooltip.io, RxJS, Moment.js, Handlebars.js
<i>Node.js Libraries</i>	Express, ESLint, Mocha, Socket.io, joi, Passport.js, JWT, Jasmine, Protractor, Passport.js, Moment.js
<i>Python Libraries</i>	Pandas, Numpy, scikit-learn, Keras, Tensorflow, Jupyterlab, Matplotlib, Seaborn, Bokeh
<i>Elixir Libraries</i>	Phoenix, Conform, Distillery
<i>Rust Libraries</i>	Clap, Regex, Serde, iced, yew
<i>Databases</i>	SQL, Elasticsearch, MongoDB, JanusGraph, RedisGraph
<i>Build Tools</i>	NPM, Pipenv, Webpack, Cargo, Distillery, Maven
<i>Deployment Tools</i>	Docker, CircleCI, Jenkins, Kubernetes
<i>Collaboration Tools</i>	Jira, Pivot Tracker
<i>Cloud-Computing</i>	AWS CloudFormation & EKS, Digitalocean, GitHub Pages, Firebase
<i>Development Methods</i>	Scrum, Kanban
<i>Sketching</i>	Draw.io, Affinity Photo & Designer, Adobe XD
<i>Versioning</i>	Git, Github, Gitlab, Gitea, Bitbucket
<i>Operating Systems</i>	MacOS, Ubuntu, Alpine, Windows
<i>Optimization Methods</i>	Evolutionary Algorithms
<i>Recognition Algorithms</i>	Neural Networks, Expert-Systems
<i>Bioinformatics</i>	DNA Analysis, EMBOSS, BLAST, SAMtools, Bowtie 2, Bedtools 2, rpy2, Snakemake, PyMOL, MOE, ETE Toolkit