

Employment

Software Engineer, Technical Student	CERN	Sep 2022 – Sep 2023
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- Innovated physics data lake and analysis platform by redesigning to cloud-native architecture and deployment.
- Implemented SSO by extending the front end. Added OAuth and OIDC to the back end and user installation options.
- Reduced manual testing effort through CI/CD automation of Helm chart linting and testing.
- Improved container and Helm charts by extending template logic and installation values.
- Wrote master's thesis: IT Architecture Design of a Future Data Analysis System for Particle Physics at CERN.
- Skills: **Python**, Git, React, Kubernetes, Docker, Helm, Flux, Jupyter, Grafana, OpenStack, GitHub Actions.

SRE, Working Student	EDEKA Digital	May 2021 – Aug 2022
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- Managed cloud infrastructure in Google Cloud/ Azure for retail apps through IaC and CI/CD.
- Shaped a new cloud operating model by introducing SRE principles.
- Skills: **Bash**, Git, Kubernetes, GitHub Actions/ GitLab CI/CD, Terraform, Helm, Datadog.

Consultant, Dual Student	EY	Sep 2017 – Apr 2021
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- Automated IT audit steps through query enhancement for web-based audit tool for ERP systems (SAP).
- Audited IT security of industrial customer systems.
- **EY China (Three-month assignment)**: Assisted with cross-country audits for German clients in Shanghai.

IT-Administrator, Full-Time	Kern-Liebers	Sep 2012 – Aug 2017
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- **Kern-Liebers Mexico (One-year assignment)**
 - Oversaw the successful set-up of the IT infrastructure for a new subsidiary in Querétaro.
 - Installed server and network hardware and integrated the new infrastructure into the global system landscape.
- Managed Linux and Microsoft systems for data centre virtualisation, storage management and networking.
- Managed global network devices infrastructure (switches, routers and firewalls).

Education

Mannheim University of Applied Sciences	since Sep 2021
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- M. S. in Computer Science (major Software Engineering), Current Grade Average: 1.0
- Coursework: Robotics, DevOps and Micro Services, Machine Learning, Reverse Engineering, Big Data Engineering, Cryptography, Design Thinking.

Baden-Württemberg Cooperative State University Mannheim	Oct 2017 – Sep 2020
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- B. S. in Business Informatics (major International Management for Business and IT), Grade Average: 1.9
- Coursework: Programming, Algorithms, Data Structures, Distributed Systems, Networking, Databases, Economics.

Vocational School Villingen-Schwenningen/ Kern-Liebers	Sept 2012 – Jan 2015
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- Apprenticeship IT-Specialist (specializing in systems integration).

Projects and Additional Experience

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- **Personal Website and Blog**: www.gosein.de. Used: Jekyll.
 - **Krypto Learn App**: Developed an Android app that teaches the mathematical foundations of cryptography and implements common algorithms. Used: React Native JS, Expo, Google Play Console, Google Cloud.
 - **Formula Student Germany**: Worked on the driverless race car implementation. Used: Docker, ROS.
 - **Object Detection**: Developed Kalman Filter tracking and DBSCAN clustering algorithm for 3D radar object detection. Used: Python.
 - **Autonomous Robot**: Developed a robot for detecting and collecting objects. Used: Python, YOLO, ROS.
 - **Twitter Clone**: Developed Twitter clone. Used: Apache Cassandra, React JS.
 - **Wordcloud Web App**: Developed online TXT to PNG word cloud generator. Used: Apache Spark, Flask, HTML/CSS.
 - **Lightning Talk JupyterCon**: Showcased the European research data lake and analysis platform at CERN.
 - **Student Speaker**: Elected student speaker to the Faculty of Economics at the DHBW.

Languages and Technologies

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- Python, JavaScript, Bash, YAML, SQL, HTML/CSS, LaTeX.
 - Git, Linux, Kubernetes, Docker, Helm, IaC (Terraform), GitOps (Flux, ArgoCD), CI/CD (GitHub Actions), Google Cloud, Microsoft Azure, OpenStack, Grafana, Kibana, Jupyter, ROS, Dask, Spark, Hadoop, Flask, Scrum.
 - German (native), English (fluent), Spanish (conversational), French (basic).