

# Amirhossein SAEMI

## Software Engineer

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Saarbrücken, Germany



Experienced backend developer with a strong academic background in distributed systems, operating systems, and computer networks. Demonstrated capabilities in developing applications in various fields such as Mobility, Networking, Energy, and Tourism with a focus on performance and reliability. Proficient in leveraging domain-specific concepts to deliver robust and efficient back-end solutions, showcasing adaptability and transferable knowledge across industries. Committed to writing testable, standard code to ensure maintainability in all projects.

## SKILLS

Programming Languages	Python, Rust, C
Web Frameworks	Django, Flask, FastAPI, Django REST Framework
Big Data	Apache Spark, Hadoop
Databases	PostgreSQL, Redis, InfluxDB
Tools & Methods	Git, Docker, CI/CD, Test Driven Development
Distributed Systems & Architectures	<ul style="list-style-type: none"><li>➤ P2P, Event-Driven, Microservices</li><li>➤ Replication, Sharding, Fault Tolerancy, Consistency</li><li>➤ RPC, gRPC, Message Passing, PubSub, HTTP/HTTPS</li></ul>
Libraries	Asyncio, SQLAlchemy, Pandas, Numpy, Tensorflow, Keras

## EXPERIENCES

Oct 2024 Apr 2024	<b>Internet Researcher, MAX-PLANCK-INSTITUT, Germany</b> <ul style="list-style-type: none"><li>➤ Analyze a dataset of 3.5 billion DNS TXT records to identify insecure or malicious use cases.</li><li>➤ Replicate the findings of the paper "TXTing 101 : Finding Security Issues in the Long Tail of DNS TXT Records" by Van Der Toorn et al.</li></ul> <div>PythonApache SparkApache Hadoop</div>
Now July 2023	<b>Software Engineer, GEOPS, Germany</b> <ul style="list-style-type: none"><li>➤ Contributed to the development and enhancement of multiple Python repositories.</li><li>➤ Upgraded existing repositories to use SQLAlchemy2 and integrated its asynchronous drivers.</li><li>➤ Contributed to the integration of APIs from Deutsche Bahn, Swiss Railways, and S-Bahn Munich.</li></ul> <div>PythonAsyncioDjangoFlaskSQLAlchemyGraphQLPostgreSQLRedisGTFS/GTFS-RT</div>
Mar 2023 Apr 2022	<b>Software Engineer, GRIDSINGULARITY, Germany</b> <ul style="list-style-type: none"><li>➤ Further developed the energy exchange for different energy markets.</li><li>➤ Enhanced matching strategies for better bid/offer matching.</li><li>➤ Refactored legacy code and improved performance.</li></ul> <div>PythonDjangoGraphQLPostgreSQLDRF</div>
Mar 2022 Jan 2020	<b>Software Engineer, TUEMA, Italy</b> <ul style="list-style-type: none"><li>➤ Designed an integrated accounting system.</li><li>➤ Migrated existing Django templates to REST APIs.</li><li>➤ Developed and maintained CI/CD pipelines.</li></ul> <div>PythonDjangoPostgreSQLDRFDocker</div>
Jan 2020 Apr 2019	<b>Software Engineer Intern, MAHSAN, Iran</b> <ul style="list-style-type: none"><li>➤ Developed web APIs for interacting with a DataDiode device.</li><li>➤ Created APIs to modify settings across various system components such as the operating system, DD engine, OpenLDAP, network, NTP, and Active Directory.</li></ul> <div>PythonDjangoLinux</div>

## LANGUAGES

Persian	●	●	●	●	●
English	●	●	●	●	○
German	●	●	○	○	○

## EDUCATIONS

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2023-2025 M.Sc. Computer Science - Universität des Saarlandes - Germany  
2017-2021 B.Sc. Computer Engineering - Qom University of Technology - Iran