



Hasan Sinan Alioglu

I am a generalist on several software technologies, especially web; also have strong Unix based systems background, specifically eager to do research and develop new ideas, passionate about IoT and embedded intelligence.

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Sr. Principal Software Engineer & Technical Lead • 1985-08-11

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</> Experience

Sr. Principal Software Engineer & Tech Lead at [Taxy.io](#)

Jun 2021 - Present / Cologne, Germany

- Designed system and software architecture for a high demand area in tax-tech. Architecture based on Docker, FastAPI, PostgreSQL, Azure Service Bus, Redis, Elk, Next.js, Auth0 and deployed on Azure by Terraform.
- Platform is successfully integrated with major financial institutions like Datev, Elster and Addison.
- Responsible for managing technical architectures for all microservices and advising engineers at the principal level. Also strongly contributed to the company and product vision.
- Designed and implemented a white label application for the biggest end user tax company in Germany. Almost 1M declarations submitted to financial authorities smoothly within the peak season, 5M+ revenue gained.
- Led an awesome multinational team of up to 25 engineers from 6 different squads.

Sr. Software Engineer & Architect at [NTT Data Business Solutions Turkey](#)

Nov 2020 - Jun 2021 / Istanbul, Turkey

- Coordinated 2 teams across 4 companies, one of which is in the top 100 for revenue in the country. Aim is to implement a backend API for a custom filtration system to prevent and track Covid-19 cases. The system includes bluetooth enabled wristbands for everyone at the manufacturer's facilities. People's wristbands capture the history of bus seating.
- Designed and implemented an IoT project that quantifies and tracks moving objects with live video analysis. This system is based on NVIDIA Jetson series devices and is compatible with most IP cameras. The heat map, common paths, and people count have been generated and ready for implementation with a client's data exchange. Physical and sentimental analysis was on duty.

Founder & Sr. Software Engineer & Architect at [GKW Technologies](#)

Jan 2016 - May 2021 / Ankara, Turkey

- Consulted and coded an artificial intelligence-backed relevant search result system for one of Turkey's top 5 B2B web sites. In the first quarter, results improved by approximately %300 and revenue increased by %20. Mostly built on Elasticsearch with Python.
- Advised about IoT and experimental sensor modules for a company in the top 100 biggest companies in Turkey. Several experiments were performed on data over sound and high-speed image processing.
- Developed five Telegram bots for several industries such as customer service, automation and education. All of them are written in Python and backed by Kafka and PostgreSQL.
- Designed systems architecture and developed implementation software to track assets with RFID for a global company in the automotive industry. Management portal is written in Go, built using AWS and EC2, DynamoDB, RDS, and SNS.
- Developed and maintained news, events and e-commerce portals with Django, PostgreSQL, Redis for a metropolitan municipality.
- I designed and developed three different devices with actuators for kids' education at a science center in a metropolitan city. Devices built on Raspbian using Python and Bash.
- Owned and build a new generation digital signage device built on Tizen. Also coded a portal with Django and CouchDB for mess device management. Used RabbitMQ for queueing, MQTT for interconnection between devices and gateway. The system architecture is based on Kubernetes orchestrated containers.
- Deployed four mobile applications for several enterprises developed with React, Python, MongoDB, GraphQL and Redis. One of them is built on AWS with Lambda, DynamoDB, Route53, S3 and Redshift. All of them are containerized with Docker.
- Advised about geospatial analyses and big data migration using NumPy, implemented a web based GIS using a powerful BPM platform with ThingWorx operated sensor cloud. This was for a market leader in the agriculture industry.
- Designed and built a new generation custom gateway device for a metropolitan water company. Gateway allows two-way communication with metering devices and headquarter. Software implemented with Python and Bash.

Sr. Software Engineer & Architect at [Mert Software](#)

Jul 2012 – Nov 2015 / Bursa, Turkey

- Lead of a team for designing and engineering of a customer specific device for automotive manufacturing market leader in country which is communicating with multiple mounting and testing devices. Device has display and is fully integrated into car mounting line, allows staff to alert and operate with their smart watches.
- Investigated the full capabilities of an ATM security device, designed a device with over fifteen sensors, recompiled a custom Linux kernel, and built a language for programming remotely. The complete system architecture is based on AWS with Lambda, SNS, DynamoDB and many IoT modules.
- Developed and maintained many web-based projects that are containerized with Docker.

Sr. Software Engineer at [Nette Interactive](#)

Dec 2011 – Jul 2012 / Bursa, Turkey

- I led a team that developed and maintained high-traffic websites, including one of the country's official television websites.
- Developed new features and maintained a local dating website, which attracted over 3m users.

Sr. Software Engineer & Systems Administrator at [Karegen Internet](#)

Jan 2009 – May 2011 / Bursa, Turkey

- Lead of a team in a top ten web hosting company. Responsible for maintain all services and endpoints, solve mission critical problems, develop new features.
- Built a country wide multiple leveled b2b and b2c software. Also developed management interfaces for call center operators of company.

Sr. Software Engineer at [TurkTicaret.Net](#)

Jul 2006 – Oct 2008 / Bursa, Turkey

- Designed and built core and all channels of a high traffic portal which have more than ten channels like news, blog, sports, movies.
- Redesigned and programmed a commercial intranet software used by more than thousand middle sized company.
- Developed a completely automated internet services e-commerce platform, redesigned and emulated it to country's biggest GSM operator.

Software Engineer at Turkofis Informatics

May 2005 – Jun 2006 / Bursa, Turkey

- Developed an online exam result software for one of the biggest private teaching institution in city.
- Created a niche social media platform for a client.

Int. Software Engineer at [Pleksus Informatics](#)

Jun 2003 – Dec 2003 / Ankara, Turkey

- Be in a part of team for developing several online congress management and online learning softwares.

Education

University of Trieste

Bachelor of Science (B.Sc.), Electrical-Electronical Engineering, EQF Level 6, Erasmus+

2010 – 2011 / Trieste, Italy

Uludag University

Bachelor of Science (B.Sc.), Electrical-Electronical Engineering, EQF Level 6, 2.24/4

2003 – 2018 / Bursa, Turkey

Languages

Turkish

Native

English

Proficient

Deutsch

Beginner

Cankiri Suleyman Demirel Science High School

Science High School Diploma, EQF Level 5, 4.5/5

2000 - 2003 / Cankiri, Turkey

⌵ Skills Top stacks and tools are the most common ones which I use significantly. Length of experience in years is beside.

Languages/Frameworks

- Bash 18
- JavaScript 17
- Python 11
- Php 18
- FastAPI 3
- Django/Flask 8
- Go 6
- Gin 3
- NumPy 5
- React/React Native 5
- Node.js 8
- Html/Css 18
- Vue.js 4
- jQuery 11
- Ionic 6
- Gatsby 3
- Laravel/Symfony 10
- Angular 6

Sql/NoSql/Queues/TP

- MySQL 17
- Redis 9
- PostgreSQL 17
- MongoDB 9
- GraphQL 3
- Cassandra 2
- ClickHouse 2
- OracleDB 2
- WebSockets 5
- MQTT 5
- CouchDB 1
- Kafka 3
- SQL Server 5
- RabbitMQ/ZeroMQ 3
- DynamoDB 4
- Amazon RDS 4
- Memcached 11
- Celery 5

DevOps/Tools/Libs

- Git 16
- *nix 18
- Nginx 16
- Jira 11
- Jenkins/Travis/Circle 8
- Webpack 5
- Saltstack 9
- Slack 7
- Elasticsearch 11
- Splunk 9
- Ansible/Chef 6
- TensorFlow 4
- HAProxy 12
- Selenium 10
- Raspberry Pi 8
- Node-RED 4
- Arduino 8
- Sentry 5

Cloud/Cluster/APIs

- Docker 7
- Hadoop 4
- Kubernetes 4
- AWS 10
- Google Cloud 4
- IBM Cloud 3
- ThingWorx 2
- Terraform 2
- Facebook 5
- Twitter 6
- Instagram 3
- Telegram 5
- OpenStack 3
- Azure 3
- Github 11
- Heroku 9
- Netlify 3
- OpenShift 2