

HESAM

OSSANLOO

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PERSONAL STATEMENT

I'm a proactive entrepreneur, technology and people leader with 15+ years of experience in leadership and software development across multiple disciplines, Agile software development, Technical scoping, Code review, Quality and Secure software, Fullstack (Typescript, React, Redux, NodeJS, Java, SaaS), Cloud Infrastructure (AWS, Azure, Serverless, PaaS), Data Pipelines, Blockchain, DevOps (CI/CD, Automation testing, IaC, IaaS) for startups and established companies. A volunteer Ph.D. student works on Semantic Search and Ontology outside my job. The Ph.D. challenge includes extensive scientific research and mentoring master's students to reach their project goals. I relocated from New Zealand to Norway 3 months ago to join the Antler entrepreneurial program. I've volunteered with Planetary Transportation Systems on a lunar rover project to send robots to the Moon for three years of outside work and studies. I've worked across many clients and tech stacks. I am passionate about working in great teams, focusing on quality and personal development within the team, mentoring enthusiastic developers, solving problems, and exploring new technologies.

WORK HISTORY

Stealth Startup

Jan 2023 – present
1 yr 4 mos –
Self-employed
Oslo, NO

Cofounder and CTO

Cofounded two companies: one in healthcare and the other in forestry and earth remote sensing.

SkogApp AS:

Conducted several interviews with potential customers. Successfully built the first MVP (<https://skogapp.netlify.app/>). To help foresters earn more out of their forest by optimising operations, forest inventory, and carbon-crediting

TAVANA AS:

Successfully raised a pre-seed round and built the first MVP. The Product was Automatic medical-coding for healthcare professionals (<https://www.tavana.health/>)

Hired and mentored three employees. Built the first medical LLM in Norwegian. Collaborated with Harvard Medical School and MIT to train BERT for medical purposes. Contributed to the open-source AI community by publishing annotated data and LLMs.

Skills & Technologies: Leadership · Team Building · Critical thinking · AWS · Agile Application Development · Serverless Computing · Full-Stack Development · Ontology Engineering · Enterprise Architecture · Technical Leadership · Cloud Computing · JS · CI/CD · TypeScript · Semantic Search · Test Automation · ML · LLM · Cloud Applications · Geographic Information Systems (GIS) · Satellite Imagery

Antler

Feb 2023 – present
2 mos – Contract
Oslo, NO

Program Participant

Participated in a rigorous three-month startup program provided by Antler, focused on building and scaling early-stage ventures.

Collaborated with diverse entrepreneurs to develop innovative business ideas and validate their market potential.

Received expert mentorship and guidance from industry professionals to refine business models, pitch strategies, and go-to-market plans.

Engaged in workshops and coaching sessions on various aspects of entrepreneurship, including customer discovery, product development, and fundraising.

Developed a comprehensive understanding of the startup ecosystem and honed skills in teamwork, problem-solving, and adaptability.

Won the Google Hackathon title for most secure and scalable technical cofounder in the program.

Skills & Technologies: Leadership · Team Building · Critical thinking · GCP

Spark Sport NZ

Feb 2022 – Apr 2023
1 yr 2 mos – Contract
Auckland, NZ

Head of Engineering

I take pride in supporting my team technically and emotionally while learning from them. I go out of my way to create a safe environment where a better argument wins, people can openly talk about their expectations and feelings, and give constructive feedback.

I ensure that the team and I understand the business objectives, so we can prioritize our tasks to achieve them. One of my focuses is that the enterprise architecture and services are scalable, reliable, and secure. Also, by hiring the right people for the job, the team can benefit from new ideas and diverse ways of doing things.

I have regular one-on-one with my team and manager and constantly ask for their feedback if they expect me to do sth. or if I failed to support them in functioning at their best.

I believe in hiring smart people so they tell us how to do things in their preferred way and not the other way around.

Projects I was working on:

Spark Sport Applications: I oversee the team's priorities to develop features that would bring more value to our customers. Also, I ensure that our products can handle the sheer amount of our customer base, potentially reaching up to a million users simultaneously. By regularly doing code reviews and exploring and setting up automated development and QA tools, I ensure that all our 20+ application platforms (Web, iOS, Android, Smart TVs, Chromecast) meet the world-class quality standard for our customers to have the best user experience. I regularly engage with our UX designers and contribute to the design and growth of our products.

Skills & Technologies: Leadership · Team Building · Enterprise Architecture · TypeScript · Node.js · CI/CD · Git · Test Automation · Serverless Framework · Azure · AWS · Security · PCI DSS · Agile Scrum

Mercury NZ Ltd.

Jul 2021 – Feb 2022
8 mos – Freelancer
Auckland, NZ

Solution Architect / Tech Lead (Contractor)

Most of my time, I am researching how to solve business problems using scalable, reliable, secure, cost-effective, and performance technologies. Daily, I interact with many stakeholders, including product owners, project managers, solution architects and developers.

The research includes technical scoping, finding logical fallacies in the current processes and architectural designs. I make sure that the future design and the use of third-party services are compatible so that the business is not spending lots of money on sth. that would either not work or worsen the customer experience.

Parallel to my duties as an architect, I also manage software product implementation from concept to completion, focusing on the quality of our software and the personal

development within the team. I participate in code review sessions and make sure the code meets the high quality based on the standard defined by the developer's community. I also take pride in mentoring younger developers and enthusiasts.

Projects I was working on:

Energy Assistance (Design, Implement): I researched replacing a current complex system (a million-dollar license) with an alternative approach that would provide the same user experience for our clients without sacrificing performance for a more reasonable price. In the process, I found some critical, logical issues with the alternative service, which I raised with the people involved, and the third-party service provider ended up fixing it. After all the stakeholders confirmed the design, I started implementing the services and the APIs. This project is still in progress.

Intraday/ Broadband/ PureCloud (Design, Mentor, Implement): I designed and implemented a RESTful API in a layered architecture that deploys a serverless function (Lambda) to AWS using serverless technologies. The Lambda gets triggered based on the messages on a queue and analyses and prepares data for other services to use. The project was successfully deployed and is being used by thousands of users.

I also mentored and supported new developers to help integrate them into the team.

Technologies: TypeScript · ReactJS · NodeJS · Serverless Framework · AWS · Git · ESLint · Scrum/ Kanban · CI/CD · IntelliJ · RESTful WS · SQL · Docker · OAuth2 · Jest · Cucumber · Yarn · NPM · Layered APIs

Centrality.ai Ltd. / P^werFinance

Aug 2020 – Aug 2021
1 yr – Contract
Auckland, NZ

Solution Architect / Technical Leader

On the technical side, I've spent most of my time researching the good practices around cloud-based (Azure) micro-services implementations (ReactJS, TypeScript, NodeJS) that communicate with Blockchain technologies. Managing and mentoring intermediate developers, 50% hands-on (design the architecture, peer's code-review), 50% leadership (working very closely with DevOps and leading the projects into production (including TDD, BDD, CI/CD with agile methodologies)).

On the business side, I've spent a good chunk of my weekly time interacting with stakeholders, product owners, and designers to make sure that the business needs and the requirements are mapped correctly to the company's technical assets and skillsets. Also, make sure that the continuous integration and delivery of the product happens efficiently, securely, automatically and meets the highest quality standards.

The research was done in various fields, including challenges around the blockchain, cryptography, game-theory and graph-theory, cloud-based micro-services (Azure), security, authentication/authorisation, and automation.

Using other DevOps infrastructure as a code framework, e.g., Terraform, Azure ARM and Bitbucket templates, we built, tested, and deployed our products with a click of a button from the Dev environment to UAT then Prod.

Projects I was working on:

AMS (Account Management Service) (Design, Implement): I designed and implemented a RESTful API, which talks to Azure Active Directory for authenticating and authorising clients.

PowerAPI (Design, Implement): I designed and implemented a gateway to handle all the incoming requests, delegate them to the blockchain or AMS, and return the appropriate resources.

PowerChain (Design): I designed an interface to securely talk to the blockchain as the smart decentralised data storage and smart contracts.

PowerUI (Design, Implement): I led the front-end team to implement the dashboard to interact with all the underlying services in the backend and with code reviews, ensuring that we followed the highest code standards that the community recommends.

User Management (IAM) (Design, Implement): I designed and implemented a very secure authentication and authorisation solution for all our API's, SPA's and web applications based on Azure active directory/ B2C and OAUTH2 authorisation code-flow.

Technologies: TypeScript · ReactJS · NodeJS · Eslint · Azure · Git · Scrum/ Kanban · Atlassian · CI/CD · IntelliJ · RESTful WS · SQL · HTML5 · CSS3 · Docker · Oauth2 · Cypress.io · Jest · Mocha · Sinon · Webpack · Yarn · NPM · VITE · Material-UI

Propellerhead Ltd.

Oct 2018 – Aug 2020
1 yr 11 mos – Fulltime
Auckland, NZ

Senior Fullstack Developer

I've worked across a few projects at Propellerhead. I spent much of my time mentoring junior developers, interacting with stakeholders and designers, and developing and maintaining cloud-based (Azure) mission control software for Auckland Transport called "Command Centre" which sends/receives real-time data flow to and from all public transport vehicles. It also makes and shows arrival/departure predictions for the fleets on the displays at stations.

Projects I was working on:

I also worked across Propellerhead's three internal apps.

A badge framework application that helps employees track their career progression.

1. An app to lodge company spending
2. An app that pulls all company data into one place to help forecast the revenue for the works in progress.

Technologies: TypeScript · ReactJS · NodeJS · Redux · Azure · Eslint · Java8 · Scrum · CI/CD · GraphQL · Redis · Kafka · Git · Atlassian · Gulp · IntelliJ · RESTful WS · SQL · HTML5 · CSS3 · Docker · PostgreSQL · Cucumber.js · Oauth2 · Cypress.io · Jest · Mocha · Sinon · Webpack · Yarn · NPM · Material-UI · Contentful

INFOMOTION GmbH

Jun 2018 – Oct 2018
5 mos – Freelancer
Frankfurt, Germany

Senior IT Consultant

(Short-term contract as I was offered the chance to move to New Zealand).

Projects I was working on:

Development and maintenance of a reporting and monitoring software called "Easy Cockpit" as a medium to extract information from SAP Business Objects and add more value to the data, and show them in a more readable and friendlier manner to the user.

Technologies: Angular6 (NG6) · Git · Atlassian · GitLab · Gulp · IntelliJ · RESTful WS · SQL · HTML5 · CSS3 · Docker · Spring · JEE · Primefaces · JSF2 · Oracle

OBJECT ECM GmbH

Apr 2016 – Jun 2018
2 yrs 3 mos – Full time

Senior IT Consultant

At OBJECT, besides communicating with stakeholders and designers, I spent most of my time leading a team of 6 juniors to intermediate developers (on-shore and off-shore) towards a common goal, ranging from various projects.

Zurich, Switzerland

Projects I was working on:

E-Verwaltung: This project was a public administration system designed to meet the requirements of federal and state administrations, municipalities, universities, churches and charitable organisations, and non-profit organisations. It included the use of Microsoft Add-Ins, Prizm Viewer for Alfresco at MACH AG

E-Cohesion: Europe-wide eGovernment solution to reduce the administrative burden for beneficiaries and other stakeholders.

Technologies: JavaScript, Java 8, HTML5, CSS3, jQuery, Atlassian, Alfresco ECM, Activiti, IntelliJ, Linux, Git, Maven, RESTful WS, Spring framework, Hibernate, SQL, Lucene, Tomcat 8, Jenkins, Vaadin, Liferay, Sass, Less, Tomcat 8, Splunk, Spring framework, Hibernate, Jenkins, SwaggerUI

Sopra Steria GmbH

Feb 2014 – Apr 2016
2 yrs 3 mos – Full time

Hamburg, Germany

Fullstack Developer

As a Fullstack developer, I oversaw communicating with stakeholders, e.g., designers, solution architects, project managers and testers, to understand the business requirements and implement them in our services.

Projects I was working on:

Hessian State Office for Roads and Transportation (Hessisches Landesamt für Straßen und Verkehrswesen): This project was an eGovernment solution for extensive process management and heavy loads and trucks.

Fraud Pool Prevention (Deutsche Schutz Portal): This project was a fraud prevention tool for banks and investment companies.

Technologies: JEE · JSF · Primefaces · jQuery · Java · HTML5 · CSS3 · JS · Spring · Hibernate · JavaScript · jboss

NTT DATA Deutschland

Nov 2012 – Feb 2014
1 yr 4 mos – Full time
Munich, Germany

Web Developer

As a Web developer, I oversaw communicating with stakeholders, e.g., designers, solution architects, project managers and testers, to understand the business requirements and implement them in our services.

Projects I was working on:

ISPA at BMW: This project was a portal for contractors and workstations worldwide to access BMW's servers and databases to find parts for After Sales services.

AudiConnect at Audi: the same type of software as above, but for Audi.

Technologies: JavaScript · jQuery · Java J2EE · HTML · CSS · XSLT · JSP · JSF

Acarda GmbH

Dec 2010 – Nov 2012
2 yrs – Full time
Frankfurt a.M.,
Germany

Web Developer

As a Web developer, I oversaw communicating with stakeholders, e.g., designers, solution architects, project managers and testers, to understand the business requirements and implement them in our services.

Projects I was working on:

Building a dashboard for ABPM (Acarda Business Process Monitoring). To monitor fund investment data, reporting and statistics for fund managers.

Technologies: JavaScript · HTML/CSS · Java · Servlets (Velocity) · Oracle

VOLUNTEER HISTORY

Planetary Transportation Systems GmbH

Sept 2017 – Feb
2020

Berlin, Germany

(Supporting remotely
from NZ from
2018-2020)

Data Scientist/Senior Developer

For the last few years, I have been involved in a project called “Mission to the Moon,” an initiative from the Google Lunar X-Prize to put a lunar rover on the moon. My role was to build mission control software as a medium to send/receive data to and from the Audi lunar Quattro and the Autonomous Landing and Navigation Module (ALINA) between the moon and the earth. The project was put on hold earlier this year due to a lack of funding.

Technologies: JavaScript · Java · Atlassian · Nasa Telemetry Software · ESA Telemetry Software · RESTful API · OAUTH2

QUALIFICATIONS

Hochschule Darmstadt – University of Applied Sciences

Jul 2015 – Present

PhD. Informatics (Part-time, In Progress)

Focus: Big Data, Machine learning, AI, ETL, Search result clustering, Semantic Web, Taxonomy, Linked Open Data, Information Retrieval, Semantic Information Visualization.

**Hochschule Darmstadt –
University of Applied
Sciences**

Oct 2010 – Oct 2012

M.Sc. of Informatics (Joint Masters in English)

Focus: System Architecture, Fullstack development (Java, JS, Ruby), Business Process Optimization.

**Cyprus International
University**

2009 – 2010

M.B.A. (2 Semesters)

Focus: Customer relations and international markets.

Azad university

2002 – 2006

B.Sc. of Software Engineering

Focus: Software Development (Java, VB, JS).

PUBLICATIONS

Bernhard G. Humm, Hesam Ossanloo: Domain-Specific Semantic Search Applications: Example SoftwareFinder. In: Thomas Hoppe, Bernhard G. Humm, Anatol Reibold (Eds.): Semantic Applications - Methodology, Technology, Corporate Use. pp. 243-258. Springer Verlag, Berlin, 2018. ISBN 978-3-662-55432-6.

Bernhard G. Humm, Hesam Ossanloo: Cost-Effective Semi-Automatic Ontology Development from Large Domain Terminology. In: Udo Bleimann, Bernhard Humm, Robert Loew, Stefanie Regier, Ingo Stengel, Paul Walsh (Eds): Proceedings of the Collaborative European Research Conference (CERC 2017), pp 73-82, Karlsruhe, Germany, 22-23 September 2017. ISSN: 2220-4164.

Bernhard G. Humm and Hesam Ossanloo (2016). A Semantic Search Engine for Software Components. In: Pedro Isaías (Ed.): Proceedings of the International Conference WWW/Internet 2016, IADIS Press, pp 127-135, Mannheim, Germany, ISBN 978-989-8533-57-9.

CERTIFICATIONS

Feb 2021 Azure Fundamentals

Apr 2020 AWS Fundamentals

Feb 2017 Advanced CSS Concepts by Microsoft

Nov 2016 Java Web-Application with Vaadin by GEDOPLAN

Oct 2015	Web development advanced concepts by Developer Academy
May 2014	Bosch Visual rules developments by Bosch Software Innovations GmbH
Mar 2013	Software engineering JEE implementation by NTT DATA

LANGUAGES

English (Fluent)

German (Fluent)

Farsi, Persian (Native Language)

Arabic (Basics)

Turkish (Basics)

HOBBIES

Reading scientific books, Mentoring younger developers, Running (I used to be a professional 800m Track & Field Runner), Football, Badminton, Ping-Pong, Painting, Listening to Music, Playing the Harmonica, doing Standup Comedy, Watching Movies & TV Shows.