Hesam Ossanloo
Head of Engineering

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Personal Statement

A proactive technology leader with 15+ years of experience in software development and leadership roles. Expert in Agile methodologies, full-stack development, cloud infrastructure, and AI. Passionate about mentoring teams, driving innovation, and delivering scalable, secure solutions.

Work History (Last 10 Years)

Cofounder and CTO

SkogApp/TAVANA, Oslo, NO
Jan 2023 – present

- Cofounded two companies: one in healthcare and the other in forestry and earth remote-sensing, and successfully raised pre-seed funding.
- SkogApp AS: Conducted several interviews with potential customers. Successfully built the first MVP (https://app.skogapp.no/). To help foresters earn more out of their forest by optimizing operations, forest inventory, and carbon-crediting.
- Automated the process of creating a forestry plan from 2 years to 30 minutes.
- TAVANA AS: Successfully raised a pre-seed round and built the first MVP. The Product was Automatic medical-coding for healthcare professionals.
- Hired and mentored 5 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.
- I designed a microservice architecture, using the API gateway, Serverless function, messaging services (Kafka/Redis/SQS), and SQL and NoSQL Databases to achieve a secure scalable web application. For quality and performance optimization, I used the CI/CD practices via GitHub actions, Terraform, and Netlify/AWS Serverless technologies.

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, React, React Native, Semantic Search, Test Automation, ML, LLM, Cloud Applications, Geographic Information Systems (GIS), Satellite Imagery

Entrepreneur in residence

Antler, Oslo, NO
Feb 2023 – May 2023

- 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

Head of Engineering

Spark Sport NZ, Auckland, NZ
Feb 2022 – Jun 2023 (M&A with TVNZ)

- Led a team of 15 engineers, ensuring scalable and secure architecture for applications reaching up to 1M users.
- Implemented CI/CD and automated testing, enhancing product quality and reducing deployment time and cloud-computing costs by 30%
- Fostered a collaborative team environment, improving team satisfaction and retention rates.

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

Solution Architect / Tech Lead (Contractor)

Mercury NZ Ltd., Auckland, NZ
Jul 2021 – Feb 2022

- Designed and implemented scalable, secure RESTful APIs using serverless technologies.
- Led a project to replace a legacy system, reducing costs by 40% and improving performance.

- Mentored junior developers, enhancing team capability and project delivery.

- Saved the company a potential 2 million dollar loss in a non-compatible energy platform (Bidgely)

Skills & Technologies: Leadership, Team Building, Enterprise Architecture, TypeScript, ReactJS, Node.js, Serverless Framework, AWS, Git, Eslint, Scrum/ Kanban, CI/CD, Intellij, RESTful WS, SQL, Docker, Oauth2, Jest, Cucumber, Yarn, NPM, Layered APIs

Solution Architect / Tech Lead (Contractor)

Centrality.ai Ltd. / P^werFinance, Auckland, NZ
Aug 2020 – Aug 2021

- Researched best practices for cloud-based microservices implementations, focusing on Azure, ReactJS, TypeScript, and Node.js, in conjunction with Blockchain technologies.
- Managed and mentored intermediate developers, balancing 50% hands-on tasks such as architecture design and code reviews with 50% leadership tasks, including DevOps collaboration and project production oversight using TDD, BDD, CI/CD, and Agile methodologies.
- Interacted with stakeholders, product owners, and designers to ensure business requirements were accurately mapped to technical assets and skill sets, ensuring efficient, secure, and automated product delivery.
- Utilized DevOps infrastructure frameworks such as Terraform, Azure ARM, and Bitbucket templates for efficient product deployment from development to production environments.

Skills & Technologies: Leadership, Team Building, Enterprise Architecture, TypeScript, ReactJS, Node.js, 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

Senior Fullstack Developer

Propellerhead Ltd., Auckland, NZ
Oct 2018 – Aug 2020

- Mentored junior developers and collaborated with stakeholders and designers to develop and maintain cloud-based mission control software for Auckland Transport, ensuring real-time data flow and fleet management.
- Developed and maintained internal applications, including a badge framework for tracking career progression, a spending application, and a revenue forecasting tool.

Skills & Technologies: Leadership, Team Building, Enterprise Architecture, TypeScript, ReactJS, Node.js, 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

Senior IT Consultant (Contractor)

INFOMOTION GmbH, Frankfurt, Germany
Jun 2018 – Oct 2018

- Developed and maintained 'Easy Cockpit,' a reporting and monitoring software, to extract information from SAP Business Objects and present it in a user-friendly manner.

Skills & Technologies: Angular6 (NG6), Git, Atlassian, GitLab, Gulp, Intellij, RESTful WS, SQL, HTML5, CSS3, Docker, Spring, JEE, Primefaces, JSF2, Oracle

Senior IT Consultant

OBJECT ECM GmbH, Zurich, Switzerland
Apr 2016 – Jun 2018

- Led a team of junior to intermediate developers, managing various projects and ensuring alignment with stakeholder requirements.
- Developed a public administration system and an eGovernment solution to reduce administrative burdens for beneficiaries.

Skills & Technologies: Leadership, Team Building, Enterprise Architecture, 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, Splunk, SwaggerUI

Fullstack Developer

Sopra Steria GmbH, Hamburg, Germany
Feb 2014 – Apr 2016

- Developed eGovernment solutions for process management and fraud prevention tools for banks and investment companies.

Skills & Technologies: JEE, JSF, Primefaces, jQuery, Java, HTML5, CSS3, JS, Spring, Hibernate, JavaScript, jboss

Web Developer

NTT DATA Deutschland, Munich, Germany
Nov 2012 – Feb 2014

- Developed portals for BMW and Audi, facilitating global access to servers and databases for parts and services.

Skills & Technologies: JavaScript, jQuery, Java J2EE, HTML, CSS, XSLT, JSP, JSF

Volunteer History

Data Scientist/Senior Developer

Planetary Transportation Systems GmbH, Berlin, Germany
Sept 2017 – Feb 2020

- Supported remotely from NZ from 2018-2020.
- Contributed to the 'Mission to the Moon' project, an initiative from the Google Lunar X-Prize to put a lunar rover on the moon.
- Built mission control software to facilitate data communication between the Audi lunar Quattro, the Autonomous Landing and Navigation Module (ALINA), and Earth.
- Developed robust and secure data transmission protocols, ensuring the integrity and reliability of communications between lunar missions and ground control.

Skills & Technologies: JavaScript, Java, Atlassian, NASA Telemetry Software, ESA Telemetry Software, RESTful API, OAUTH2

Qualifications

PhD. Informatics (Part-time, 6 yrs, not defended)

Hochschule Darmstadt – University of Applied Sciences
Jul 2016 – 2022

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

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

Hochschule Darmstadt – University of Applied Sciences / Wisconsin Platteville USA
Oct 2010 – Oct 2012

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

Skills & Technologies

- Programming Languages: JavaScript, TypeScript, Python, Java

- Web Technologies: React JS, Node.js, HTML5, CSS3

- Cloud Platforms: AWS, Azure, GCP

- DevOps Tools: Docker, Kubernetes, Jenkins, Terraform, Serverless, AWS/Azure DevOps

- Messaging Technologies: Kafka, Redis, SQS

- Databases: MySQL, PostgreSQL, MongoDB, Firestore, PostGIS

- Others: Agile Methodologies, CI/CD, TDD, BDD

- Soft Skills: Leadership, Team Building, Critical Thinking, Problem-Solving, Communication, Mentoring, Collaboration

Publications

Feb 2022 – Apr 2023 (M&A with TVNZ)

- 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

- May 2023: Conflicts of Interest, (MIT) CITI Institute Affiliates, For LLM training

- May 2023: Data or Specimens Only Research, (MIT) CITI Institute Affiliates, For LLM training

- Feb 2022: Spark Leadership and management

- 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)

- Norwegian (Basics)

- 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.