HAMED SAHEBI

Software and Data Engineer

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I'm a results-oriented software/data engineer with a proven track record of designing and implementing innovative software solutions. Proficient in full-stack development, with expertise in languages such as Node, Python, React, and TypeScript. Skilled in problem-solving and passionate about staying current with industry trends and emerging technologies. Committed to producing efficient, scalable, and maintainable code to drive project success. I have over 4 years of experience in web development and data engineering solutions in Norway, and I'm now seeking a similar role.

EXPERIENCE

Main Software/Data Engineer - GenAI and Microservices (100%)

University of Stavanger

December 2024 – Ongoing | Stavanger

This project is a continuation from the previous one with more achievements and tasks.

- Developing a new service for generative AI development.
- Developing vector DB, OpenAI, and langchain for document-based knowledge query.
- Developing AI agents using OpenAI and langchain for interacting with the AI-drill software.

Main Software/Data Engineer - AI and Microservices (100%)

University of Stavanger

February 2023 – November 2024 | Stavanger

Developed and deployed a real-time drilling data acquisition, prediction, and optimization system as a project funded by Equinor. Key contributions include:

- Full lifecycle software development, from architecture design to deployment and maintenance.
- API development for real-time data acquisition, preprocessing, prediction, and optimization using Node.js, TypeScript, and Python.
- Integrated deep learning models into production environments.
- Implemented microservices by Dockerizing multiple APIs.
- Developed databases using MongoDB and PostgreSQL.
- Built the front end with React and TypeScript.
- Contributed technically to securing a **5M NOK** Commercialization grant from the Research Council (2024-2026).
- Contributed technically to securing a **500K NOK** Qualification grant from the Research Council (2022-2023).

Full-stack developer (36%)

University of Stavanger

March 2021 – August 2021 | Stavanger

- Successfully developed and added the trajectory visualization, design, and optimization modules to the pre-developed drilling database application.
- Rest-API development using Python (Flask).
- Front-end development using React.

Full-stack developer (100%)

University of Stavanger

June 2020 – December 2020 | Stavanger

SKILLS

Prompt Engineering | langChain | OpenAI API integration | LLM fine-tuning

API development | Node | Express | Python | Flask | MongoDB | PostgreSQL

React | Typescript

Git | Docker compose | Cloud deployment

Time series data preprocessing | Real-time data analysis | Pandas | Numpy | skit-learn | keras | Deep learning

SOFT SKILLS

Critical thinking | Result oriented | Problem solving | Team work

CERTIFICATES

- Node.js: The Complete Guide to Build Restful APIs 15 hours online course by Udemy
- Rest APIs with Flask and Python 17 hours online course by Udemy
- Understanding TypeScript - Edition 2023, 15 hours online course by Udemy
- Testing React with Jest and React Testing Library (RTL) 8 hours online course by Udemy
- The Ultimate MySQL Bootcamp 20 hours Online course by Udemy
- Docker and Kubernetes: The Complete Guide 22 hours online course by Udemy
- Python for Data Science and Machine Learning Bootcamp 21.5 hours online course by Udemy

LANGUAGES

- English – Fluent (5/5)
- Norwegian – Basic (2/5, A2 level)

- Successfully developed two web applications for operational data management, visualization, and well-planning for the energy and petroleum engineering department.
- Conducted full lifecycle software development from planning to deployment and maintenance.
- Rest API development using node.js (Express) and python(flask).
- Design and Front-end development of the drilling data analysis and well-planning user interfaces using React.
- Database development using PostgreSQL and Influx DB.
- Data cleaning and preparation using Python libraries (pandas and Numpy).
- Cloud service deployment using Heroku.

Software engineer (40%)

Valide As

Sep 2019 – December 2019 Stavanger

During this period, I was hired by Valide As to work for Tide Wave As. Tide Wave As is an automation company in Norway that applies automation technology in the health and care section.

- In line with my work situation in TideWave As during the summer, my contract was extended during the fall to continue my contribution to TideWave As until December 2019.

Software engineer (100%)

Valide As

June 2019 – August 2019 Stavanger

During this period, I was hired by Valide As to work for Tide Wave As. Tide Wave As is an automation company in Norway that applies automation technology in the health and care section.

- Successfully developed applications for the performance analysis which helped the company in the device automated monitoring and a better understanding of the system behavior.
- Software development for real-time monitoring and data analysis using Python (pyqt5 and Tkinter).
- Data Analytics and statistical modeling for real-time automated monitoring and decision-making using Python (pandas, NumPy, sci-kit learn)
- Database development using MySQL.

Data scientist (30%)

ProWellPlan

Sep 2018 – December 2018 Bergen

ProWellPlan As is a tech company in Norway which works in digital oil well planning.

- In line with my work situation in ProWellPlan As during the summer, my contract was extended during the fall to continue my contribution to ProWellPlan until December 2018.

Data scientist (100%)

ProWellPlan

June 2018 – August 2018 Bergen

- Successfully applying machine learning models for real-time operation monitoring and geology recognition.
- Time-series, depth-based, and composite log data investigation, preparation, and feature extraction.
- Developing supervised machine learning models from the prepared data.
- Developing analytical models for the ML models evaluation and verification.

EDUCATION

Single course in computer science

University of Oslo

January 2021 – June 2021

High-performance computing and numerical projects

M.Sc. Well engineering

University of Stavanger

August 2017 – June 2020

Courses:

- Automated drilling and modeling
- Computational reservoir and well modeling
- modern well design
- Thesis title: A Riemann solver for the drift-flux flow model

TEACHING EXPERIENCE

Automated drilling and modeling

University of Stavanger

January 2019 - May 2019

Computational reservoir and well modeling

University of Stavanger

August 2018 - December 2018

PUBLICATIONS

Journal Articles

- D. Sui and H. Sahebi, "Trend and dynamic analysis on temporal drilling data and their data-driven models," *Geoenergy Science and Engineering*, vol. 223, 2023.

Conference

- H. Sahebi, E. Wiktorski, and D.Sui, "Design, optimization, and visualization of wellbore trajectory in 3d," in *SPE Norway Subsurface Conference*, Bergen, Norway, 2022.

HOBBIES

- Swimming
- Bodybuilding
- Playing Duduk
- Yoga

PROJECTS

The movie database full-stack development using Node and React.js

11/2021 – 02/2022

- This project has been done as a personal task for developing full-stack skills.
- Git front Repo: https://github.com/hamedsahebi/movie-db
- Git API Repo: https://github.com/hamedsahebi/movie-rental

Deep Q Network reinforcement learning for cart pole game

03/2022 – 04/2022

- This project is about integrating deep learning and Q network to train a gamer for the cart pole game.
- Git Repo: https://github.com/hamedsahebi/cartPole-DQN

Policy Gradient reinforcement learning for continuous action space mountain car game

02/2022 – 04/2022

- This project is about integrating policy gradient and deep learning to train a gamer for the continuous action space mountain car game.
- Git Repo: https://github.com/hamedsahebi/mountaincar-PG-countiounsActionSpace