WILLIAM SANDVEJ HANSEN

Data Engineer

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Capital Region of Denmark, Denmark william-sandvej-hansen grusinator

Summary

As a Senior Software Engineer with an advanced background in Earth and Space Physics and Electrical Engineering, my robust experience with project development and software engineering, including extensive work on both backend and ETL systems, aligns exceptionally with SWORD Group's technological and innovation goals. My technical proficiency, demonstrated through a range of successful projects such as Aander-backend and MetaDataApi, complements my practical skills in AI, Django, and Azure environments, ensuring a strong contribution to your team. Additionally, my hands-on experience with agile methodologies and my ability to adapt to evolving technical landscapes would support SWORD Group in maintaining its competitive edge in the industry. My interdisciplinary education and focus on practical applications of engineering fundamentals will bring a unique perspective and enhance the collaborative and innovative capacities of your engineering team.

SKILL MATRIX

name	level	last used	years of exp.
CSS	●○○○○	2024	6
django	●●●●○	2024	3
PCB Design	●○○○○	2013	1

EXPERIENCE

Data Engineer

Energinet

December 2022 – October 2023 Fredericia

Responsible for developing a data project collecting massive amounts of data from the energy island in Denmark, from various providers. Main goal was to receive, perform quality control, and deliver data. Used Spark and Databricks for scalability and flexibility with various data formats like GDB, DFSVU, segy, xtf. Supported geospatial data in Spark using Sedona (GeoSpark) to store data in Delta Parquet format and perform spatial partitioning using geohashing to improve read performance.

Spark Databricks GeoSpark Delta Parquet Geohashing

Data Engineer

Ørsted

March 2020 – November 2022 Gentofte

Developed a data validation component as part of data pipelines with configurable inputs, using Python and Pandas, integrated using Azure Service Bus. Involved with data modelling, using MS SQL Server, REST API, and Python. Developed mock databases with SQLAlchemy and SQLite to test changes before production. Developed data analytics and visualization tools using Python, Streamlit, Panel, Dash, and Bokeh.

LANGUAGES

Python
SQL
JavaScript
C#

PERSONALITY

Eager Motivator Creative Debator Teamplayer

PROJECTS

django-json2model

create django models dynamically from json data structures Python

HuntingTrainerVR

A VR shotgun hunting simulator, tracing individual pellets to make an accurate feel of how to go on the practice grounds. Get on your target before the swarm of pellets gets too thin. You can both shoot after target discs or birds. Built with Unity. https://github. com/Grusinator/HuntingTrainerVR

C unity3d VR

EDUCATION

Master of Earth and Space Physics and Engineering

Danmarks Tekniske Universitet

2014 – 2016

Bachelor of Electrical Engineering

Syddansk Universitet

2010 – 2014

HTX

Vejle Tekniske Gymnasium

2007 – 2010

Python Pandas Azure Service Bus MS SQL Server REST API SQLAlchemy SQLite Streamlit Panel Dash Bokeh Azure Devops Docker K8S

IT Consultant

Netcompany

November 2018 – November 2019 København

Worked on large projects building custom IT solutions with multiple integrations. Used Oracle, Groovy, REST, and a bit of JavaScript. Employed Jira and Git for project management and version control.

Oracle Groovy REST JavaScript Jira Git SCRUM

Softwareudvikler

NIRAS

September 2016 – March 2018 Allerød

Developed geodata algorithms for data transformation, processing of lidar data, and images. Created an image classifier for building identification in spectral orthophotos. Developed a model using LIDAR and GIS road data to identify height profiles of roadsides and calculate cleaning costs. Developed plugins for QGIS using Qt and Python.

C Postgres PostGIS QGIS Qt Python CAD CNN

Engineer

KK Wind Solutions

March 2014 – August 2014 Ikast

Investigated the switch of a communication chip for IO boards in wind turbine control systems. Involved programming the chip in C and exploring communication protocols such as EtherCat, Profinet.

C EtherCat Profinet