JAN MOTENE

Junior Software Developer | Data Scientist

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SUMMARY

Innovative Junior Software Developer and Data Scientist skilled in designing efficient algorithms, building scalable applications, and extracting actionable insights from data. Skilled in Python, Java, SQL, and data visualization tools, with hands-on experience in machine learning and predictive modelling. Strong collaborator with excellent problem-solving, communication skills, and a commitment to delivering high-quality results.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, C#, SQL, SAS (Basics)
- **Database Management:** MySQL, MS SQL Server, PostgreSQL
- **Data Science Tools:** Scikit-learn, TensorFlow Keras, MLFlow, Seaborn, Matplotlib, Pandas, NumPy
- **Data Analysis:** Data Cleaning, Data Manipulation, Exploratory Data Analysis, Data Modelling
- **Cloud and DevOps:** Git, Azure, AWS, Azure, Jira, Confluence, Docker
- **Other Tools:** RESTful APIs, React, Statistics, Power BI, Microsoft Excel, Spring Boot, .NET

EXPERIENCE

Sand Technologies   Remote, SA
Data Scientist Intern   09/2024 - 11/2024
- Developed predictive models and recommendation systems using machine learning and deep learning
- Worked on semantic segmentation model, takes image as input and produce segmentation mask
- Collaborated with Data Engineers to ensure data pipelines and sources are functioning correctly
- Conducted Exploratory Data Analysis (EDA) to uncover trends and deliver actionable insights
- Collaborated with cross-functional teams to deliver analytical solutions, improving decision-making

Tshimologong Precinct   Johannesburg, Gauteng
Junior Software Engineer   07/2023 - 06/2024
- Built and maintained scalable Java and Spring Boot solutions following best practices
- Designed and implemented RESTful APIs for seamless integration in distributed systems
- Optimized SQL queries and database structures, improving system performance by 20%
- Conducted unit testing and peer code reviews, ensuring zero defects in production releases
- Collaborated with cross-functional teams to deliver high-quality, business-aligned software

Dynamic DNA   Randburg, Gauteng
System Developer Intern   05/2022 - 04/2023
- Developed and maintained RESTful APIs for data integration, ensuring seamless integration
- Conducted unit and integration testing, achieving a 95% defect-free release rate
- Participated in Agile Scrum ceremonies, contributing to the timely delivery of key initiatives
- Documented database structure changes and configuration files, ensuring accurate reference
- Supported production query management and resolved incidents escalated by the operations team

EDUCATION

ExploreAI Academy

Data Science Practitioner

Remote, SA

01/2024 - 12/2024

Key Skills: Data Gathering and Manipulation, Analytical Programming, Data Visualization, Data Governance, Machine Learning, Data Mining, Model Deployment

Tshwane University of Technology

Diploma in Information Technology

Pretoria, Gauteng

01/2018 - 12/2021

Key Skills: Object-Oriented Programming, Database Management, Data Structures & Algorithms System Analysis & Design, Web Application Development, RESTful APIs Design

CERTIFICATION

- AWS Cloud Practitioner: Amazon
- Java SE 8 Programmer 1 (1Z0-808): Oracle
- Azure Fundamentals (AZ-900) & (DP-900): Microsoft
- National Certificate in IT – System Development Level 05: MICTSETA

PROJECTS

Height Segmentation Model (Geospatial AI)

- **Tech Stack:** Python, OpenCV, TensorFlow, Keras, GIS, MLFlow
- **Description:** Built a **segmentation model** that predicts **building heights from satellite images**, assisting **telecom providers in optimizing radio frequency propagation**.
- **Key Contributions:**
  - Processed **LiDAR and satellite image data** for accurate segmentation.
  - Trained a **U-Net deep learning model** for **semantic segmentation**.
  - Integrated the model into a **Streamlit dashboard app** and **AWS EC2**

Employee Management System

- **Tech Stack:** Java Spring Boot, React.js, MySQL, RESTful APIs, JWT
- **Description:** Developed a **full-stack employee management system** that allows HR teams to **manage employee records, roles, and payroll** efficiently.
- **Key Contributions:**
  - Built a **full-stack Employee Management System** with **Spring Boot, React.js, and MySQL**, featuring an interactive dashboard.
  - **Implemented JWT-based authentication** for secure role-based access control.
  - **Deployed with Docker and CI/CD pipelines** for automation and scalability.

REFERENCES

Available upon request