Terry Kuo

Sr. Data Engineer & Data Scientist

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📍 Valby Langgade 255, Copenhagen

Visa Status: Legal Residence in Denmark

About Me

Senior Data Professional with 5 years of experience, bridging the gap between robust data engineering and advanced analytics. Specialized in **Databricks**, **Python**, and **SQL**, with a proven record of designing high-quality data flows and accurate modeling. Augmented by an M.Sc. in IT and Cognition, I possess a unique blend of technical expertise and human behavior.

Skills

- Python
- SQL
- Databricks
- AI / Machine Learning
- Business Data Analytics
- ETL Pipeline
- CI/ CD + Azure DevOps
- Workflow Orchestration

CERTIFICATIONS

- Databricks Professional Data Engineer
- Azure Data Scientist
- Azure AI Engineer Fundamental
- Azure Data Fundamental

Motivation

Driven by a passion for solving problems at the intersection of human behavior and data, I see Saxo as the ideal place to leverage my experience engineering **PSD2 fraud prevention** products. I aim to combine my strong technical foundation in Python, Databricks, and SQL with my analytical mindset to deliver fit-for-purpose models, ensuring high data integrity and effective financial crime prevention.

🎓 Education

Master of Science, IT and Cognition
Copenhagen University   2019 - 2021

- Interdisciplinary curriculum bridging cognitive theories with computational modeling.
- Key coursework: Machine Learning, Scientific Programming (Python), and Natural Language Processing.

Bachelor of Science, Psychology
National Taiwan University   2009 - 2013

- Rigorous training in Quantitative Analysis and experimental design at Taiwan's top-ranked university.
- Gained foundational knowledge in human cognition and neuroscience, applicable to user-centered design and data analysis.

💼 Work Experience

Data Engineer, Business Insights
PostNord, Copenhagen   2024 - Present

- Translated complex business logic into production code while managing CI/CD release processes for seamless deployments.
- Modernized reporting architecture by re-engineering legacy logic into optimized SQL on Databricks.
- Orchestrated scalable data workflows via Azure Data Factory to ensure automated and reliable data delivery.

IT Consultant, Data & Insights
Capgemini, Copenhagen   2021 - 2024

Legacy Migration Project in TDC A/S

- Executed the migration of 30+ mission-critical legacy reports from T-SQL to Databricks SQL, establishing modern data processing standards.
- Achieved a 10x performance gain in ETL pipelines by refactoring Databricks notebook structures and optimizing Spark execution plans.
- Led a QA team to engineer an automated testing pipeline using Python, significantly reducing manual testing hours while ensuring data integrity across migrated solutions.

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About Me

Senior Data Engineer with 5 years of experience specializing in the Azure Cloud Stack, Databricks, and Python. Augmented by an M.Sc. in IT and Cognition. Expert in designing robust ETL/ELT pipelines and automated CI/CD processes. Proven ability to bridge business requirements with technical architecture, delivering scalable solutions for analytics and data science teams.

Skills

- Python
- SQL
- Databricks
- ETL Pipeline
- CI/ CD + Azure DevOps
- Data Governance
- Workflow Orchestration
- AI/ Machine Learning

CERTIFICATIONS

- Databricks Professional Data Engineer
- Azure Data Scientist
- Azure AI Engineer Fundamental
- Azure Data Fundamental

Analytics Project in Essity AB

- Acted as a technical liaison between Marketing and Analytics departments, resolving workflow misalignments and fostering cross-functional collaboration.
- Architected a modern, scalable data warehouse solution from the ground up to replace legacy infrastructure.
- Achieved a 13x performance improvement in daily data processing by re-engineering pipelines using PySpark, Databricks, and Azure Data Lake.
- Empowered analysts by deploying high-impact PowerBI solutions, directly enabling data-driven strategic decisions across the organization.

Fraud Prevention Report in Nets A/S

- Engineered a high-volume Financial Crime Prevention (FCP) data product (PSD2) currently utilized by major Danish banks, enhancing transaction monitoring capabilities.
- Orchestrated a massive-scale migration of TB-level data from 10+ disparate databases using Hive SQL, ensuring data integrity and readiness for advanced statistical analysis.
- Collaborated on defining modelling methodologies, specifically driving improvements in feature selection and loss function optimization to ensure models were robust and fit-for-purpose.

Machine Learning Intern
Neurons Inc., Copenhagen   2020 - 2021

- Developed a multimodal Computer Vision model to predict human visual fixation, enhancing prediction accuracy by engineering an audio extraction feature pipeline.
- Built and orchestrated end-to-end data pipelines on Google Cloud Platform (GCP) using Python and TensorFlow to handle large-scale video datasets (~120 GB).
- Optimized distributed training performance and data throughput by identifying bottlenecks with TensorFlow Profiler, significantly reducing model training time.
- Designed efficient preprocessing workflows for unstructured video data, ensuring high-quality input for deep learning models.

Research Assistant
Tsinghua University, Beijing   2018 - 2019

- Engineered Deep Learning models using Python and PyTorch to simulate auditory attention mechanisms, successfully bridging Cognitive Science theories with AI implementation.
- Built robust data preprocessing pipelines for unstructured datasets (Audio and Image), ensuring high-quality input features for neural network training.
- Authored and published a peer-reviewed paper as the First Author, synthesizing complex technical findings into clear insights.
- Publication: Inferring Cocktail Mechanisms of Auditory Attentional Modulation with Deep Neural Networks, Neural Computation (2022).

Recruitment Consultant
Adecco, Taipei   2015 - 2018

- Specialized in talent recruitment and managed client relationships effectively.
- Earned top-performing new employee by achieving the highest sales.