Axel Olafsson
Data Scientist

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EDUCATION

UNIVERSITY OF BATH   Bath, England
Computer Science MSc (Graduated with **Distinction / 1st Class Honors)**   2023 - 2024
Relevant Courses: Artificial Intelligence, Reinforcement Learning, Software Engineering (*Python, C, Java, Haskell*), Databases *(SQL)*, Entrepreneurship
Dissertation: "*Investigating the Hot-Hand in NBA Basketball*" *(Awarded a 1st / 73%)*

UNIVERSITY OF EXETER, Psychology BSc   Exeter, England
Achieved First-Class Honors in Statistics and Research Methods classes   2020 - 2023
Dissertation: "The effect of processing fluency on facial attractiveness"

WORK EXPERIENCE

BLAZESQL *(AI-powered Natural Language to SQL Data Analysis Software)*   Luxembourg
Junior Data Scientist   Nov 2024 – March 2025
- Conducted comprehensive error analyses of natural language to SQL query pipeline using python, processing 2,000+ error instances across multiple database types contributing to reduced query error rates via regular collaboration with model engineers.
- Developed dashboards using BlazeSQL software to track user error trends, saving hours of manual reporting work.
- Identified key improvement areas including timestamp data handling, reserved keyword handling, and database-specific syntax variation.
- Used llama to leverage local LLMs to automate categorization of SQL syntax errors, cutting manual troubleshooting time in half.

VECTOR PROPERTIES Ltd.   Luxembourg
Assistant Bookkeeper   July 2020 - September 2020
- Systematically categorized and maintained financial datasets according to regulatory requirements, ensuring data accuracy and accessibility.

PROJECTS

Dissertation: "Investigating the Hot Hot hand in NBA basketball"   Distinction / First Class / 73%
- Used python and machine learning (Random Forest, XGBoost) methods to investigate the "hot hand" phenomenon in NBA basketball, analyzing over 400,000 shots across live games and 3-point contests.
- Developed shot prediction models, achieving up to 64% accuracy comparable to other state-of-the-art approaches in sports analytics.

Reinforcement Learning - Rainbow DQN for Lunar Lander   Distinction / 84%
- Implemented a Rainbow DQN reinforcement learning algorithm involving 6 key extensions to a basic DQN algorithm to solve the Lunar Lander environment using PyTorch and OpenAI Gym.
- Collaborated with a team using Agile and Scrum for iterative development and weekly sprints.

Artificial Intelligence - Sudoku Solving Algorithm   Distinction / 71%
- Built an efficient Sudoku Solver implementing constraint propagation with DFS backtracking in Python.

CERTIFICATIONS

GOOGLE DATA ANALYSIS PROFESSIONAL CERTIFICATE   June 2025
Data collection, cleaning, analysis, and visualization using industry-standard tools like SQL, R, and Tableau.

RICE UNIVERSITY DATA ANALYSIS USING EXCEL   October 2024
Data analysis for business applications including PivotTables and advanced formulas.

ADDITIONAL

Skills: Python, SQL, pandas, sci-kit learn, PyTorch, matplotlib, seaborn, LLama, parameter tuning, NumPy, PowerBI, Excel, Git, LLM prompting
Languages: Native - English, German **Intermediate -** (Icelandic, French)
About Me: My multidisciplinary background has provided me with a strong statistical and research base that has spurred my passion for data science. I'm an avid basketball player that has played semi-pro in Luxembourg and for multiple university teams. In my spare time I enjoy video games, board games, listening to music, going to the gym and cooking. Thanks to my team sporting background I excel working collaboratively in teams and in leadership roles.