ERIK BERTOLINO

CONTACT INFORMATION

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SHORT SUMMARY

Swedish/Italian Mathematician, Data Scientist and project enthusiast.
Specialized in the intersection between programming and finance, in a data science setting. Has experience with project management in an agile way.

EDUCATION

Master's degree in Applied Mathematics	Autumn 2017-Summer 2020

Mathematical Sciences at University of Gothenburg
Two exchange semesters at ETH Zürich

One course left for attaining another Master's degree in mathematical statistics.
Pure Mathematics courses and Machine Learning courses taken at ETH.
Notable courses: Differential Geometry II, Functional Analysis II and Optimal Transport, where the first-mentioned is one of the hardest courses given at ETH and the last one is given by Fields medalist Alessio Figalli.

Bachelor's degree in Mathematics	Autumn 2013-Summer 2017

Mathematical Sciences at University of Gothenburg

Bachelor Thesis - Deep Hyperthermia Optimization (highest grade)
Several courses are at Masters level and Ph.D level.

WORK EXPERIENCE

Lead AI Engineer	Autumn 2023

Asset Management | Batonics AB, Sweden (Remote)

As the Lead AI Engineer at a fintech start-up, I steered our team in applying AI to Asset Management, with an emphasis on pragmatism and collaboration. My responsibilities included coding in Python, developing a program that efficiently ingests Excel files for data analysis, and maintaining our AI software to meet evolving business needs. I ensured clear communication with both my technical team and upper management, and facilitated partnerships (key account management) with external companies in the Asset Management industry to align our AI efforts with strategic internal business objectives.

Data Scientist / Data Engineer	Spring 2023

Commodity Trading | LSPower, Zug
Specializing in website scraping and database creation to extract and structure valuable data, using python. Leveraging the automation of tasks to improve efficiency and accuracy in data collection and processing. Used Streamlit for easy data exploration and visualization. Trained machine learning models with MLFlow to enhance predictive analysis and decision-making processes. This position encompassed initiating all projects from scratch.

Business Analyst   Autumn 2021
Middle Office department | SCOR, Zurich   /Spring 2022

Developing business intelligence tools and performing analytics in reinsurance. Applying visualization tools in R to facilitate business strategy. Developing this software in an Agile way with Azure. A substantial project done was a migration of SQL databases to Databricks, where Tableau is used. The insights generated were then subsequently communicated to upper management.

Master thesis in Deep Learning   Autumn 2020
AI & Analytics department | Volvo Cars, Gothenburg   /Spring 2021

Using information geometry to perform Anomaly Detection in Deep Neural Networks (VAEs, GANs). Developing a model that currently is on par with the state-of-the-art models in anomaly detection with promising results. The hyperparameters of the model were optimized in AWS Sagemaker.

Consultant Developer   Summer 2020
Milleteknik AB | Gothenburg   /Autumn 2022

Programmed a live-app program for electricians for selection of battery back-up given customer input. A lot of project management and communication was needed, since the customer was not specific about many details. The project utilized the MEAN stack, encompassing MongoDB and noSQL databases. I was also in charge of writing a 35 paper long technical report on how the program functions.
Impact: The impact was very significant, it automatized four jobs, decreasing wage costs by 15% and doubled the yearly revenue growth from 4% to 8%, which was mainly caused by increased customer retention.

Research / Teaching Assistant   Spring 2020, Summer 2019
Department of Mathematics | Chalmers University of Technology

As a teacher's assistant in calculus at the University of Gothenburg and in mathematical statistics at Chalmers University. Concurrently, I expanded my Bachelor thesis into developing a treatment system for cancer tumors, focusing on hyperthermia treatment optimized through an algorithm. This project enhanced my skills in implementing data structures.

PROGRAMMING   Main languages: Python, R, Javascript
Secondary / Libraries: SQL, C, Tensorflow, PyTorch, scikit-learn, pandas, numpy, AWS Sagemaker

LANGUAGES   Bilingual: English and Swedish. German (B1), Italian (A2)

HOBBIES   Weightlifting, reading, playing chess, and making good pastas

Civil status   Single, no children

REFERENCES   Given upon request   2/2