MARK  
BREZINA

Kvantitativ Udvikler

RESUMÉ

målrettet data science og analyse udvikler med erfaring indenfor Python, R, SQL, og SAS. Programmeringserfaring fra stillinger med fokus på kvalitet, analyse færdigheder og problemløsning.

MB

ERFARING

WaveTech (placeholder name) København, Danmark

Stifter – Strateg og ledende udvikler april 2024– nu

*Led the development of an algorithmic trading startup focused on creating innovative trading strategies and software solutions for financial markets.*

* Conducted extensive research on algorithmic trading strategies, focusing on trend-detection, momentum detection, and hidden Markov models.
* Developed and implemented advanced statistical models to improve probability estimates for trading signals.
* Architected and built a robust software setup for algorithmically trading long and short positions live through various exchanges.
* Integrated real-time data feeds and APIs for market data acquisition and trade execution with Python and C++.

LD FONDE København, Danmark

deltids data analytiker august 2023–april 2024

*A Danish pension fund that manages and invests pension assets on behalf of members.*

* Developed and maintained the company's Python package, LDF, handling data extraction, transformation, and loading from the company data warehouse, MSCI API, Sustainalytics API and Bloomberg API.
* Managed and implemented business intelligence processes in PowerBI with integrated Python functionalities. For the infrastructure, also automated data extraction, transformation, analysis, and export processes to PowerBI.
* Designed VBA macros and Excel add-ins to automate data quality checks and streamline ad-hoc processes. Developed a system enabling Excel-Python connectivity through predefined commands in the Python library, facilitating access to APIs, databases, and Python tools for less IT-savvy staff.
* Performed analyses encompassing interest rate risk, asset allocation, performance against benchmarks, derivatives, and risk management at both portfolio and instrument levels.
* Contributed to an in-house portfolio simulation engine and capital reserving process to mitigate margin calls on forex futures.

LÅN&SPAR BANK København, Danmark

Studentermedhjælper januar 2023–august 2023

*A medium sized loan and savings bank in Danmark.*

* Mapped the underlying database and analysed the data quality for the IRB data pipelines.
* Analysed and documented the data analysis process on high-risk customers and presented my findings to the executive committee.
* Assisted in the development and deployment of the data governance policy and framework.

DJØF København, Danmark

VBA & python Instruktør januar 2023–august 2023

*An association for Danish law, social science and economics employees and students.*

* Led a series of courses on advanced Excel, Python, and beginner to advanced VBA with an average of 20 students per course.
* Developed coursework for the courses in advanced VBA. Topics included nesting, advanced function development and the connection between windows applications within VBA/VBS.

PROFIL

Ambitiøs dedikeret og hårdt arbejdende ung mand, med en rolig og beregnende tilgang. Jeg bestræber mig på og opnår perfektion i mit arbejde.

KONTAKT

Classensgade 25a

København Ø

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(+45)93904834

MDBrezina.com

UDDANNELSE

KØBENHAVNS UNIVERSITET   København, Danmark

Bachelor, Matematisk statistik Uafsluttet

Relevante kurser: Basic non-life insurance mathematics, basic life insurance mathematics, advanced probability theory, mathematical statistics 1&2, stochastic processes 1,2 & 3.

KØBENHAVNS UNIVERSITET København, Danmark

Bachelor, Matematisk fysik Uafsluttet

Relevante kurser: Complex function theory, the mathematics of weather dynamics, Vector calculus 1 and 2, Differential geometry 1 and 2.

DANMARKS STATISTIK København, Danmark

Studentermedhjælper  september 2021–august 2023

*Danmarks nationale og centrale statistik bureau.*

* Udviklede software løsninger, med en kombination af Excel/VBA/VBS, SAS og SQL.
* Profitability and performance analysis of various projects/products in DST. Key areas of the analysis were project income, project expenses, project duration, and number of hours spent.
* Documented the software architecture for the Donations system. Developed in a combination of C#, SQL, and Excel.
* Maintained the time sheets and HR analysis systems. Developing further advances to analysis aspects.

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CERTIFIKATER

* Foundations of financial risk certificate, GARP January 2021
* Professional certificate Data analysis, Microsoft edX, September 2020
* Professional Certificate Corporate Finance, ColumbiaX edX, September 2020
* Macroeconometric Forecasting, IMF edX, September 2020
* Macroeconometric Diagnostics, IMF edX, July 2020
* Financial Market Analysis, IMF edX, September 2020

RELEVANTE AKTIVITETER

SSP PYTHON BIBLIOTEK

Python library provides functionality for simulating and visualising stochastic processes. More precisely, it introduces objects representing several continuous-time stochastic processes and provides methods for simulation.

KNOWLEDGEBASE

Collection of useful resources on quantitative finance, mathematics and insurance mathematics. The collection spans many pages, subjects and types of media. It is my pride and glory.

KVANTITATIV PORTEFØLJESTYRING

Developing, deploying, and automating a decision-making system on investment opportunities, written in Python. The system deploys the Markowitz framework for quantitative portfolio management and a hand-made decision-making system.

BOGSAMLING

In connection with my collection of resources for the knowledgebase accessible via github, I’ve been collecting relevant books and magazines on quantitative finance, mathematics and insurance mathematics. I’ve acquired more than 100 books; pictures of my collection are available at request.

TEKNISKE KOMPETENCER

* Mathematics, Especially Probability theory and Statistics oriented towards Actuarial or Financial mathematics.
* Programming and IT: Python, R, SAS, SQL, or VBA. Automation, Model development and software development. Experience with various data management topics, datamining, data visualization, data cleansing in Databases and data warehouses, data quality analysis/data validation.
* Analytics development for business intelligence or for more advanced use, such as AI/Machine learning development. This also includes documentation and optimization of current processes.

PERSONLIGE KOMPETENCER

* A positive attitude towards learning new skills and technologies, a quick learner, with a mind for algorithmic thinking and programming logic.
* Agile team player with a proactive and practical attitude.
* Self-driven, goal-oriented and detail oriented: focus is on finding the most important goals with critical thinking, problem solving with creative inputs and making sure to meet expectations.

INTERESSER

* Passionate about health and fitness; engage in daily physical exercise including running, weight training, and Pilates.
* Entusiasme for strategi og strategispil såsom skak, Go, og real-time strategispil. Dette har hjulpet mig med at udvikle en sans for strategisk planlægning og kritisk tænkning.
* Kunst entusiast, mine interesser inkluderer kalligrafi Grafisk design og concept art. Min passion for disse kunstarter har bidraget til min sans for æstetik og mit øje for detaljer.

AWARDS & ACCOMPLISMENTS

* Bidragsyder til Anton Vorobets bog om portefølje konstruktion og risikostyring.
* Medlem af Mensa Danmark.
* Deltager på UNF fysik camp 2014.
* Medlem af Akademiet for Talentfulde Unge 2013 - 2015.
* Design for change Danmark vinder 2012.

REFERENCER

* Tina Mollerup Laigaard, tidligere økonomichef hos Danmarks Statistik.
* Claus Gotfred Rasmussen IRB-chef hos Lån&Spar.
* Michael Steen, chef for investeringsanalyse hos LD Fonde.

LINKS

*Disse kan kun bruges, hvis man læser mit CV på en computer.*

* Linkedin: https://www.linkedin.com/in/markdbrezina/
* Github: https://github.com/CopenhagenToLondon
* Instagram: https://www.instagram.com/copenhagentolondon/
* Personal webpage: mdbrezina.com
* Kaggle: https://www.kaggle.com/copenhagentolondon
* Medium: https://medium.com/@markbrezina2123

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