CIAN HAMILTON

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in LinkedIn

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PROFESSIONAL SUMMARY

Researcher with a Master's in Theoretical Physics and 3 years of business experience, combining expertise in mathematical modeling, machine learning, and statistical analysis with strategic thinking. Experience conducting data analysis using Python and developing Al-powered solutions for complex business problems. Proven track record of driving strategic decisions in a fast-scaling startup environment and implementing automated analysis systems.

TECHNICAL SKILLS

Data Science: Data analysis, data visualization,

statistical modeling, time series analysis

Mathematics: Linear algebra, stochastic calculus, opti-

mization, differential equations

Programming: Python (NumPy, Pandas, Pytorch, Mat-

PlotLib), Excel (VLookUps, Macros, Pivot

Tables), Linux terminal, SQL

PROFESSIONAL EXPERIENCE

08/2022 current

Research Analyst

Project Eaden

Contributed to multiple areas of the business over the last 3 years as the company's first employee, scaling from 1 to over 30 team members.

Research: Led literature review of 400+ scientific papers, identifying critical research that resulted in the change of our main ingredient, which almost doubled our consumer acceptance scores. Developed and implemented numerical models using partial differential equations to solve heat equation constraints, optimizing product specifications and preventing manufacturing failures.

Intellectual Property: Delivered on patent strategy including writing and filing a patent, and conducting a Freedom to Operate analysis, which boosted investor interest in our next funding round.

11/2020 07/2022

IT Support Technician

Free University Berlin

Solved the IT problems of university staff and students for their Linux and Windows computers.

09/2017 06/2019

Teaching Assistant

University of Groningen

Tutored students in tutorials and labs, as well as mentoring students. I received the most recommendations of any other tutorial assistant in the department that semester.

EDUCATION

2019 2022

Research Master's in Theoretical Physics

Free University Berlin

- Year-long masters thesis in the field of classical and quantum chaos at the Max Plank Society
- Completed advanced coursework in Deep Learning and Machine Learning

2016 2019

Bachelor's of Science in Theoretical Physics

University of Groningen

- Thesis on Non-Relativistic Supersymmetry
- · Emphasis on quantitative analysis and problem-solving

PROFESSIONAL DEVELOPMENT

12/2024

Built Automated Stock Analysis Platform: cianhamilton.com

Developed python-based system automatically analyzing daily S&P 500 stock movements, statistical indicators, and news, to explain significant price movements. Another webpage summarises SEC filings as they are published.

2024

Coursera

Completed intensive 106-hour Advanced Excel Specialization, mastering financial modeling, VBA programming, automated reporting systems, and advanced analytics functions.

2025

Self-study with Textbooks (studied cover to cover)

- Modern Principles of Economics, by T. Cowen and A. Tabarrok.
- · Mathematical Statistics with Applications, by D. Wackerly
- Storytelling with Data: A Data Visualization Guide for Business Professionals, by C.N. Knaflic
- Learning SQL by A. Beaulieu
- Forecasting: Principles and Practice by R. J. Hyndman

ADDITIONAL ACHIEVEMENTS AND INTERESTS

03/2022

Scientific paper

Link to paper

 Main author of an academic article in the field of quantum chaos. I presented this work at the scientific conference SAMOP21.

07/2022 08/2023

Volunteer Research Analyst Work for a Non-Profit

SWP

- · Assisted economic modeling (collating relevant academic papers, summarizing, and analyzing data).
- · Ran project on building a framework to help prioritize cost-effective interventions.

Other Interests

Sailing (ex-sailing instructor), ultramarathon running, ultimate frisbee, classic novels, and math puzzles.