

Dear Othot team,

I am excited to apply for the Data Scientist position at Othot. The opportunity to contribute to a team that leverages advanced analytics to improve student outcomes strongly aligns with my background in data analysis, predictive modeling, and quantitative optimization.

During my Computer Science degree at Haigazian University, I developed a solid foundation in Python, analytics, and applied mathematics. My capstone project, Portfolio Optimization with Machine Learning, applied Modern Portfolio Theory and Scipy-based numerical optimization to construct efficient investment portfolios and visualize risk–return trade-offs in an interactive Streamlit dashboard. This experience strengthened my ability to build and validate data-driven models, automate workflows, and communicate technical findings through clear visual outputs.

I also developed a Predictive Stock Trading Algorithm in Python that used real-time Yahoo Finance data, Scikit-learn models, and Matplotlib visualizations to forecast price trends and generate buy/sell signals for long-term strategies. This project deepened my practical experience in machine learning, data preprocessing, and backtesting while reinforcing disciplined evaluation and debugging practices.

In addition, my participation in NASA's Space Apps Challenge, where my team built a Bayesian network based weather probability prediction tool using real NASA climate data, enhanced my collaboration and presentation skills, as we transformed complex probabilistic outputs into accessible insights for non-technical audiences using Gemini's API.

I am drawn to Othot's mission of transforming educational data into actionable intelligence, and I am confident that my mix of analytical thinking, technical expertise, and collaborative mindset would make me a strong contributor to your Data Science team.

Thank you for your consideration.

Sincerely,

Boghos Hamalian