Abraham N. Doe

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Skills & Talent

Adaptability, Artificial Intelligence/ Machine Learning/ Large Language Models, Data Science & Analytics, Empathy, Emotional Intelligence, Execution, Financial Planning, iOS Development, Persistence, Portfolio Management, Problem Solving, Python (MatPlotLib, Pandas, Plotly, Scikit-Learn, Seaborn, TensorFlow), Research, SDLC, Strategy, Value Investing

Experience

Researcher, Philadelphia, PA, January 2025 – Present

- Developed software for automated AI factory data pipelines, algorithms, evaluation functions, and infrastructure.
- Developed an algorithm for a portfolio management process that sets a strategic asset allocation based on the Capital Asset Pricing Model identifying optimal weights for each portfolio asset.
- Automated financial analysis research process with an algorithm that returns critical factors for any NYSE or NASDAQ listed equity security.

Vanguard, Malvern, PA, July 2021 – January 2025

Retirement Education Specialist, December 2023 – January 2025

- Peer reviewed and lead over 50 client meetings on financial wellness, savings and investments, and retirement planning.
- Consulted one-on-one with employee participants of institutional clients that have up to $5B in assets under management on tax-efficient savings strategies, asset allocation, and common size budgeting.

Client Representative, Associate, July 2021 – December 2023

- Assisted over 10,000 clients as an Associate in the Vanguard's Personal Investor Division
- Provided a world-class client experience conducting investment guidance consultations, mutual fund/stock/ETF transactions, Roth conversions, and small business retirement account consultations.
- 100% Client Availability, 96% Digital Adoption rate, and 88.9% Client Satisfaction for the most recent year-end performance year.

Education

University of Pittsburgh School of Law, Juris Doctor (J.D.)

University of Pennsylvania, Master of Science in Education (M.S.Ed.)

Pennsylvania State University, Bachelor of Arts (B.A.)

Licenses & Certifications

CFA Institute, Level I

Codecademy, iOS Developer, Artificial Intelligence/Machine Learning Engineer

College for Financial Planning, Wealth Management Specialist

Columbia Business School, Value Investing (Online): Making Intelligent Investment Decisions

Financial Industry Regulatory Authority (FINRA), Securities Industry Essentials (SIE), Series 7 General Securities Representative, Series 63 Uniform Securities Agent

Harvard Business School Online. CORe (Credential of Readiness) is a 150-hour certificate program on the fundamentals of business from Harvard Business School. CORe is comprised of three courses—Business Analytics, Economics for Managers, and Financial Accounting—developed by leading Harvard Business School faculty and delivered in an active learning environment based on the HBS signature case-based learning model

New York University School of Professional Studies, Certificate in Financial Planning.

Projects

AI Factory. This portfolio demonstrates end-to-end expertise in *Artificial Intelligence (AI), Machine Learning (ML), and Large Language Models (LLMs)* through production-ready *data pipelines, algorithms, evaluation functions, and scalable infrastructure*. It is written in Python and designed to highlight practical engineering skills for enterprise clients seeking advanced solutions to reduce costs while driving outcomes and revenue. https://github.com/BlackArsenic88/ai-factory.

Modern Portfolio Theory Software. This program applies the quantitative principles of *Modern Portfolio Theory (MPT)* to optimize portfolio construction and performance. It systematically evaluates the mean *expected return* (y) and *risk* variance (x) of public equity assets to identify the optimal combination that maximizes the *Sharpe ratio*—the measure of return per unit of risk. Through rigorous mean–variance optimization, the model identifies portfolios along the *efficient frontier,* enabling investors to achieve the highest possible expected return for a given level of risk. By emphasizing *diversification* across sectors and industries and, it minimizes unsystematic risk and enhances long-term wealth preservation. Designed to simplify complex investment decisions, this framework empowers clients to make data-driven financial choices that promote capital growth, risk reduction, and the creation of enduring family wealth. www.testandi.com

Qualitative & Quantitative Financial Analysis. A program that performs comprehensive financial statement analysis across *income statements*, *balance sheets*, and *cash flow statements* to extract predictive financial indicators. The software employs *multiple regression models* and *Artificial Neural Networks (ANNs)* to forecast *quarterly revenues* and *earnings per share (EPS)* for publicly traded companies. It then continuously refines model parameters using supervised learning across epochs and cross-validation to enhance accuracy and adapt to changing market dynamics. *Advanced Natural Language Processing (NLP)* models analyze *press releases*, *10-K* and *10-Q* filings, and *annual reports* to perform *sentiment analysis* and text summarization, and create automated *PESTLE (Political, Economic, Social, Technological, Legal, and Environmental)* strategic reports.