**Minh Quang Trinh**

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**EDUCATION**

**Dickinson College Carlisle, PA**

**Bachelor of Science** Expected May 2026

* Major GPA: 3.8 (Data Analytics)/ 3.8 (Quantitative Economics)
* Relevant Coursework: Advanced Probability & Statistics, Introduction to Data Science, Econometrics, Introduction to Computer Science, Data Systems for Data Analytics, Accounting, Machine Learning, Linear Algebra, Empirical Finance, Time Series Analysis
* Other Coursework: Business Intelligence, Marketing, Generative AI Concepts, AI Security and Risk Management, The Data Science of Retail, Sales and Commerce

**WORK EXPERIENCE**

**HKG Energy Newcastle, Delaware**

**Research Analyst Intern** May 2025 – present

* Conduct in-depth research in battery technology and energy solutions, analyze data, report findings, and contribute to technical reports and presentations, do research and analysis on data governance. Do research and data analysis on company’s partners (Volkswagen. Qualcomm, etc.)
* Web scraping and data analysis on global critical minerals; produced executive reports for the CEO highlighting geographic distribution, revenues, historical mining and refining volumes, and regional performance

**FPT USA Corporation Richardson, Texas**

**Data Analyst Intern** May – August 2024

* Researched business intelligence and machine learning metrics, enhancing data-driven decision-making processes
* Cleaned, explored data (EDA), identified, and measured key performance metrics among 112,650 e-commerce orders over two years, developed visualization charts, enhancing user engagement, and facilitating better interaction with stakeholders, and developed business rationales, increase strategic decision-making efficiency

**Viettel Solutions Corp. (Big Data Analytics Center) Hanoi, Vietnam**

**Data Analyst Intern** June – August 2023

* Conducted research on data systems, web scraping, and machine learning metrics, improving data acquisition and analysis efficiency, apprenticed under a Senior Data Scientist, acquiring experience in professional data analytics methodologies, wrote reports about market trends and business performance forecast
* Visualized comprehensive dashboards for Central Vietnam Precipitation, and amount of gas emissions produced by factories for the Vietnam Ministry of Natural Resources and Environment to consolidate future weather predictions, achieving the accuracy by 91%

**SKILLS AND PLATFORM USED**

* Programming Language: Python, R, SQL, Stata
* Data Acquisition: Web scraping, API integration, data wrangling and transformation techniques
* Power BI, Tableau, Google Cloud, Superset, Microsoft Excel, Outlook, Powerpoint, Word

**PROJECTS & RESEARCH**

**Project: Stock Behavior & Economic Interactions: A Quantitative Analysis** [(Link)](https://github.com/QuangMinh07112003/Stock_Behavior_and_Economic_Interactions_Quantitative_Analysis)March - May 2025

* Performed a 10-year quantitative time series analysis of 8 tech and e-commerce firms, leveraging CAPM, GARCH, and Fama-French 5-Factor models to evaluate volatility, return efficiency, and market sensitivity.
* Processed and interpreted over 20,000+ data points to uncover sector-specific risk dynamics and regime shifts, equipping investors and analysts with data-driven strategies during macroeconomic uncertainty.
* Linked advanced econometric modeling with real-world shocks like COVID-19, providing scalable frameworks for risk forecasting, policy evaluation, and fintech algorithm development.

**Project: Lithium-ion Batteries Performance Prediction using Machine Learning** [(Link](https://github.com/oliviapetronio/Li-ion-batteries-and-Temperatures)**)** October – December 2024

* Conducted advanced data analysis using linear regression, correlation matrices, L2-regularized polynomial regression to optimize lithium-ion battery performance across varying temperatures and charge rate
* Evaluated energy and power efficiency metrics to enhance the lifespan and safety of batteries in applications like electric vehicles and energy storage systems
* **Skills and knowledge used:** data cleaning, data transformation, relational databases, classification, data visualization, regression models, regression interpretation, correlation matrices, hyperparameter tuning, and regularization

**Independent Study Project: Tennis Grand Slam Complex Analysis: A Statistical Approach into the most Popular Racket Sport (advisor: Prof. Eren Bilen, Dickinson College’s Data Analytics Department)**  [(Link)](https://github.com/QuangMinh07112003/Tennis-Grand-Slam-Complex-Analysis-Project)August – December 2024

* Conducting a comprehensive study using heatmaps to visualize serves and returns positioning, uncovering key strategic players’ serve and return patterns in professional tennis
* Building logistic, polynomial & linear regression models to assess the impact of serves & returns position, court conditions, serve speed, winners, unforced errors, and other components on match outcomes, identifying crucial factors influencing players’ performance
* Creating an online interactive visualization dashboard using Panel to generate data-driven insights, offering valuable support for optimizing players’ performance and improving coaching strategies for competitive matches [(Link)](https://py.cafe/app/QuangMinh07112003/panel-tennis-stats)
* **Skills and knowledge used:** data cleaning, data transformation, relational databases, statistics, classification, data visualization, regression models, regression interpretation, correlation matrices, and dashboard construction

**EXTRA-CURRICULAR ACTIVITIES AND LEADERSHIP**

Club President and Co-founder, Dickinson Badminton Club (September 2023 – February 2025)

Economics and Math Quantitative Reasoning Associate, Quantitative Reasoning Center Dickinson College (Jan 2025– present)