# Christopher Hynes

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#### EDUCATION

Georgia Institute of Technology

Jan. 2024 – Expected Dec. 2026

M.S. in Computer Science. Cumulative GPA: 4.0

Atlanta, GA

University of South Carolina: Honors College

Aug. 2018 – Aug. 2022

B.S. in Statistics, Economics; Summa cum laude, GPA: 4.0

Columbia, SC

University Carlos III of Madrid

Sep. 2021 - Jun. 2022

Study Abroad Program

Madrid, Spain

### Awards & Honors

## Stephen D. Durham Award

2022

Awarded to the top senior statistics student for exceptional academic performance.

#### Phi Beta Kappa Honor Society

2022

Top academic honor society in the liberal arts and sciences

## Palmetto Fellows Scholarship

2018 - 2022

South Carolina state scholarship awarded for exemplary academic achievement.

#### Presidential Scholars Award

2018 - 2022

South Carolina state scholarship awarded for high SAT/ACT scores.

## EXPERIENCE

## Data Analyst Intern

Jun. 2023 – Sep. 2023

GreyNoise Intelligence; Finance and Operations Team

Washington, DC

- Automated error checks in Excel across datasets to flag data inconsistencies
- Improved NAICS-to-industry classification by rebuilding and partially automating the mapping system in Excel
- Developed Excel models to streamline deal calculations, including mid-term upgrades and co-term merges
- Automated vendor and transaction breakdowns in Excel to enable detailed monthly spend analysis by category
- Built a cash investment tracker integrating financial institution data to forecast returns for monthly planning
- Analyzed customer churn and lead origins in R, identifying key drivers of churn and conversion
- Built an interactive churn prediction dashboard with Streamlit to visualize drivers and support retention strategies

#### Undergraduate Research Assistant

May 2021 – Oct. 2021

Darla Moore School of Business; Division of Research

Columbia, SC

- Reviewed literature on spatial segregation metrics and neighborhood effects in Charleston, SC
- Cleaned and analyzed MSA-level economic, social, and demographic data to study STEM worker agglomeration
- Calculated location quotients and ran regressions in Stata/R to identify drivers of STEM clustering across MSAs
- Redesigned course materials to meet university accessibility standards, improving usability for all students

#### Undergraduate Research Assistant

Jan. 2020 – Jan. 2021

University of South Carolina; Department of Economics

Columbia, SC

• Digitized and organized CDC vital statistics data (natality, maternal mortality rates, live birth order, and live births by attendant) to support analysis of racial disparities in birth outcomes post-hospital desegregation

# Projects

# Personal Portfolio Website | Quarto, Markdown, GitHub Pages

Jul. 2025

- Built and deployed a personal portfolio website from scratch to showcase data science projects and technical skills
- Configured GitHub Actions for automated build, test, and deployment of website
- Used Quarto to render Jupyter Notebooks and R Markdown into dynamic, maintainable web pages

#### Revisiting Neural Models for Hospital Readmission | Python (PyTorch), Colab

Mar. 2025 – Apr. 2025

• Reimplemented a published neural network (CONTENT model) and GRU benchmark for hospital readmission prediction using PyTorch

- Performed statistical testing, finding original paper's results non-significant; improved performance significantly (p < 0.0001) via grid search tuning
- Integrated LLMs into development workflow and documented their role in the research process

## Machine Learning for Finance: Capstone Project | Python (Pandas, NumPy), Git Jan. 2024 – May 2024

- Developed a trading strategy learner using a bagged random tree model implemented from scratch, trained on custom and standard technical indicators
- Built a market simulator from scratch to backtest and compare the ML strategy against a custom manual strategy, optimizing for risk-adjusted returns

## Individual HCI Project: Streamlined Camera Mode Selection in iOS | Figma Oct. 2024 - Nov. 2024

- Designed and prototyped a functional iOS camera interface in Figma, informed by user research (observations, surveys) and heuristic analysis
- Validated the new design through user testing, which showed significant user preference over the original interface

## Thesis: The Effects of Chile's Neoliberal Reforms in the 1970s | R, tidyverse Aug. 2020 – May. 2022

- Used the synthetic control method in R to create a counterfactual "synthetic" Chile using World Bank data
- Estimated the causal impact of the 1970s neoliberal reforms, finding a significant positive effect on GDP per capita robust to several checks

## Coursework

Computing: Machine Learning for Trading, Big Data for Health Informatics, Big Data Analytics, Robotics: AI Techniques, Applied Multivariate Statistics, Computing in Statistics, Human-Computer Interaction, Algorithmic Design Mathematics and Statistics: Introduction to Analytics Modeling, Statistical Methods I & II, Probability, Mathematical Statistics, Theory of Statistical Inference, Calculus I II & III, Linear Algebra

Economics: Introductory Econometrics, Intermediate Microeconomics & Macroeconomics, Quantitative Microeconomics, Labor Economics, Development Economics, Urban Economics

## TECHNICAL SKILLS

Languages: Proficient in R, Python, SQL; Familiar with Java, Stata, SAS

Libraries: tidyverse, NumPy, pandas, matplotlib, PyTorch, Streamlit, Hugging Face Transformers

Frameworks: Familiar with PySpark, Hadoop (Pig, Hive)

Developer Tools: Familiar with Markdown, Git, Google Colab, Jupyter Notebook

Software & Tools: Microsoft Office Suite (Excel, Word, PowerPoint); Familiar with Tableau, Figma

Data Science and Machine Learning: Proficient in statistical analysis, hypothesis testing, A/B testing, forecasting, and prediction; Experience with supervised and unsupervised learning methods (e.g., linear and logistic regression, decision trees, KNN, SVM, clustering, neural networks, natural language processing)

### LANGUAGES

 $\bullet\,$  English: Native

• Spanish: Advanced

• German: Intermediate

• French: Basic