VARUN VARANASI

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EDUCATION

Yale University *August 2020 - Present*

B.S. Intensive Physics (Major GPA: 4.0), B.A. Statistics + Data Science (Major GPA: 3.9) GPA: 3.8

Relevant Coursework: Linear Algebra, Data Structures, Theory of Statistics, Bayesian Statistics, Data Analysis, Real Analysis, Complex Analysis, Classical Mechanics, and Electrodynamics

WORK EXPERIENCE

Strategy Consulting @ Benjamin Maurice LLC *July 2021 - July 2022*

- **Projects:** P.E. Due Diligence, FinTech Growth Strategy, and Manufacturing Market Penetration
- **Contributions:** Wrote, managed, and analyzed two 60+ question market surveys, modeled 5 year cost-revenue projections, designed 20+ client-ready slides, and analyzed 40+ expert interview transcripts
- **Skills:** Financial modeling, product positioning, market research, competitve landscape analysis, expert interviews, survey design and analysis (consumer and expert), slide design, client and 3rd party communication

Data Science @ Lantern Pharmaceuticals *May 2021 - August 2021*

- **Projects:** Developed a feature selection algorithm for Lantern's proprietary drug development pipeline
- **Contributions:** Identified/implemented 3 correlation-based feature selection methods, modularized 10+ python scripts for use in a data pipeline, and evaluated CodeOcean environment for company use
- **Skills:** Python, CodeOcean, data analysis, correlation, and feature selection

RESEARCH EXPERIENCE

Quantitative Finance Research, Yale University *March 2021 - Present*

PI: Gregory Laughlin

- **Projects:** Modeling S&P500 index volatility based on metrics of fear/uncertainty in the population
- **Contributions:** Designed and tested backtrading schemes to evaluate the predictive power of fear metrics on S&P500 volatility, and data scraped and conducted time series analysis on VIX, VXX, and Metaculus user data
- **Skills:** Python (BackTrader), algorithmic trading, data analysis, time series analysis

Quantitative Social Science, Yale University *September 2020 - September 2021*

Human Nature Lab, PI: Prof. Nicholas Christakis

- **Projects/Contributions:** Developed a python-based predictive regression model for COVID-19 risk estimation in the US with 10+ public health predictors and over 10^6 data points
- **Skills:** Python and machine learning

Chemical Engineering, North Carolina State University *June 2017 - May 2020*

The Dickey Group, PI: Prof. Michael Dickey

- **Projects:** Created liquid metal thin films for applications in self-healing circuits and polymer encapsulated liquid metal droplets
- **Contributions:** Identified and designed novel experimental procedure for liquid metal deposition, optimized experimental efficiency, and conducted literature reviews
- **Skills:** Nanoparticle synthesis, electrophoretic deposition, and microfluidics

AWARDS

2nd Place in Citadel Securities' Summer DataOpen *July 2022*

- Evaluated market inefficiencies in LendingClub's peer-to-peer lending market place

Top 1% in COMAP's Highschool Mathematical Modeling Challenge *November 2019*

- Developed agents-based models to predict the economic impact of charging devices in public spaces

Top 2% in Mathworks Mathematical Modeling Challenge *February 2020*

- Modeled the adoption of electric trucks and infrastructure into the long-haul trucking industry

SKILLS

Languages: Spanish (Intermediate), Telugu (conversational), and Mandarin (Intermediate)

Technical Skills: Python, R, C, functional programming, and the Microsoft Suite