

# VARUN VARANASI

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## EDUCATION

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### Yale University

August 2020 - Present

B.S. Intensive Physics (4.0), B.A. Statistics + Data Science (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

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### Benjamin Maurice LLC

July 2021 - July 2022

Strategy Consultant Intern

- **Projects:** P.E. Due Diligence, FinTech Growth Strategy, and Manufacturing Market Penetration
- **Contributions:** Wrote, managed, and analyzed 2 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, competitive landscape analysis, expert interviews, survey design and analysis (consumer and expert), slide design, client and 3rd party communication

### Lantern Pharmaceuticals

May 2021 - August 2021

Data Science and Platform Development Intern

- **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, machine learning, and feature selection

## RESEARCH EXPERIENCE

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### 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

## EXTRACURRICULAR

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### Jashan Bhangra

September 2020 - Present

- **Treasurer:** Write grants, bookkeep, and collaborate with local sponsors for all financial needs
- Perform classical Indian (Punjabi) dance at Yale and the local New Haven area

## SKILLS

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

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