


# Tejas Gupta

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## EDUCATION

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### Princeton University

*Bachelor of Science in Engineering in Computer Science*

Princeton, NJ

May 2024

- **GPA: 3.97/4.00**
- *Coursework:* Machine Learning, Generative AI, Natural Language Processing, Information Security, Full Stack Development, Data Structures & Algorithms (**class TA**), Programming Systems (**A+**), Principles of Blockchains (**A+**), Product Management Bootcamp, Technology Entrepreneurship, Venture Capital
- *Awards:* **Shapiro Prize** for Academic Excellence (award by faculty nomination for Princeton 1<sup>st</sup> years); Novogratz **Bridge Year Scholar** '19-'20 (competitive 1-year scholarship to work and study in India) **Tau Beta Pi** (invited into oldest engineering honor society in U.S.A. as a third-year undergraduate)
- Chosen for competitive Computer Science **Departmental Exchange Student at ETH Zürich** (Spring 2023)

### Millburn High School

Millburn, NJ

June 2019

- **SAT: 1600, ACT: 36, GPA: 4.4/4.0, rank: 4**
- *Awards:* U.S. Presidential Scholars Program Semifinalist, National Merit Finalist, National AP Scholar

## PROFESSIONAL EXPERIENCE

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### Bridgewater Associates

*Investment Associate Intern*

Westport, CT

June 2023 – Aug. 2023

- World's largest hedge fund and investment management firm with \$150B+ assets under management
- Learned to analyze macro-economic fundamentals from first principles and translate to trading strategies
- Conducted quantitative research using volatility and options based strategies on Portfolio Analytics team

### Tower Research Capital

*Quantitative Trading Intern*

New York, NY

June 2022 – Aug. 2022

- Fully automated high-frequency trading and financial services fund with significant global trading volume
- Analyzed and executed (mock) trading strategies and constructed quantitative forecasting models using machine learning, time series analysis, and a complete custom-built natural language processing pipeline
- Designed and coded algorithm for ranking relative market impact of scheduled economic events on U.S. and international equities and futures

### NITSAN Sustainable Development Lab

*Research Assistant*

Tel Aviv University, Israel

June 2021 – Sept. 2021

- Developed regression models, GIS maps, and water-quality metrics to examine efficacy of alternative irrigation systems in irrigation efficiency and water utilization in over 600,000 rural Indian villages

## SELECTED PROJECTS AND RESEARCH

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### Statistical Evaluation of Indian Soil Security for Urban-Rural Systems Science Applications

*Python*

- Currently working with **Google Research**; sponsored by Princeton M. S. Chadha Center & Urban Nexus Lab
- Applied geospatial data science and remote sensing to identify anomalies in novel Soil Health Card dataset

### Social Platform for Music Discovery and Analysis

*Swift, Javascript, Firebase, [deployed on iOS](#)*

- Built social media app that generates customized profiles of users' music tastes using OpenAI and NLP tools
- Developed novel music recommendation algorithm based on similarities in users' profiles for in-app use

### Robust Knowledge Graph Completion (KGC) with Convolutions and Student Re-Ranking Network

*Python*

- Modified Lovelace et al., 2021's paper on KGC by replacing textual embeddings using Phrase-BERT
- Wrote 9 new loss functions for student re-ranking objective to optimize correct fact choice

## LEADERSHIP EXPERIENCE

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### Princeton IgniteSTEM Club, *President and Director*

Jan. 2021 – present

- Manage recruitment, outreach, curriculum development, and sponsorships for STEM education non-profit
- Organize bi-annual professional conference for 100+ K-12 teachers and annual HS design-thinking challenge

### Princeton Club Squash, *President and Captain*

Jan. 2021 – present

- Coordinate 5 practices per week for sixty-student team and organize competitive intercollegiate matches