

# Sumit Goel

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## EDUCATION

<b>California Institute of Technology</b> , Ph.D. in Social Science (minor in Computer Science) Research areas: Game Theory, Economics & Computation   GPA: 4.0	2017–2023
<b>Indian Statistical Institute, Delhi</b> , M.S. in Quantitative Economics Score: 85.85%   Class Rank 1	2015–2017
<b>Delhi Technological University</b> , B.Tech. in Computer Engineering CPI: 75.96%   First Class with Distinction	2011–2015

## EXPERIENCE

<b>New York University Abu Dhabi</b> , Postdoctoral Associate <ul style="list-style-type: none"><li>Conducted research in incentive and market design using game-theoretic models and experiments</li><li>Taught Intermediate Microeconomics twice (class size: ~20)</li></ul>	2023–Present
<b>Econschool</b> , Instructor <ul style="list-style-type: none"><li>Developed econschool.in, hosting resources for undergraduate economics students (~50 daily visitors)</li><li>Designed a year-long test series program subscribed by ~50 students annually since 2022</li></ul>	2020–Present
<b>Royal Bank of Scotland (RBS)</b> , Software Intern <ul style="list-style-type: none"><li>Wrote XSLT code to enhance reports generated by the MyVantage Analytics platform</li></ul>	Summer 2014

## PROJECTS

<b>COVID-19 Forecasting with Machine Learning</b> <ul style="list-style-type: none"><li>Developed a real-time forecasting model for daily COVID-19 deaths across all U.S. counties</li><li>Ranked top 5 of 50+ Caltech teams on various metrics, such as pinball loss and run time (ML course, Caltech)</li><li>Forecasts contributed to the U.S. COVID-19 Forecast Hub dataset, Scientific Data, Nature</li></ul>	2020
<b>Competitive Network Seeding Algorithm</b> <ul style="list-style-type: none"><li>Designed an algorithm to select seed nodes maximizing diffusion under competing cascades on a network</li><li>Ranked 1st among 40+ teams in the PandaManiac competition (Networks course, Caltech)</li></ul>	2019
<b>Backtesting Algorithmic Trading Strategies (Bollinger Bands)</b> <ul style="list-style-type: none"><li>Built a Python-based backtesting framework using historical U.S. equity data (QSTK/pandas)</li><li>Evaluated Bollinger Bands strategies across parameterizations using cumulative returns, Sharpe ratios, turnover</li></ul>	2015

## RESEARCH (Selected)

<b>The Effect of Competition in Contests: A Unifying Approach</b> (with Andrzej Baranski) <ul style="list-style-type: none"><li>Analyzes how prize structures affect effort provision in contests</li><li>Shows that winner-take-all prize structures maximize effort, though greater prize inequality need not increase effort</li></ul>	2025
<b>TTC Domains</b> (with Yuki Tamura) <ul style="list-style-type: none"><li>Studies object reallocation problems where the Top Trading Cycles (TTC) mechanism plays a central role</li><li>Characterizes preference domains where TTC remains uniquely desirable, with applications to kidney exchange</li></ul>	2025

## ACHIEVEMENTS

Publications: 6 economics journal articles, including Journal of Economic Theory, Games and Economic Behavior  
Conference Presentations: ~25 academic conferences across U.S., U.K., UAE, India, South Korea

## SERVICE

Teaching Assistant at Caltech: 9 quarters across 6 courses, including Econometrics, Finance, Algorithmic Economics  
Leadership: Captain of Caltech Cricket Team (2022), President of Caltech Badminton Club (2019–2020)

## SKILLS

Programming: Python, R, C/C++, JavaScript, HTML, CSS

Relevant Coursework: Finance, Asset Pricing, Algorithms, Machine Learning, Econometrics, Probability