Krutuparna Paranjape

Pre-Final Year Undergraduate
Double Majors in Computer Science(B.T) & Economics(B.S)
✉ krutuparna21@iitk.ac.in | ☎ +91-9054862707 | **in** krutuparna

Education

Year	Degree/Certificate	Institute	CPI/%
2021 - Present	B.Tech	Indian Institute of Technology Kanpur	**9.5**/10
2020	CBSE(XII)	Global Public School Kota	96%
2018	CBSE(X)	Essar International School Surat	97%

Scholastic Achievements

▶ Received **Academic Excellence Award-IITK thrice** for exceptional academic performance in **2021,2022,2023**
▶ **Department Rank 1**, scored **10 SPI(Semester Performance Index)** consecutively in 3rd & 4th semesters
▶ Scored **Outstanding Grade(A*)** in **Advanced Econometrics** and **Intro to Behavioral Economics**
▶ Received **NTSE(National Talent Search Examination) Scholarship 2018**, selected among **2M+** students
▶ Invited by **EPFL Univeristy, Switzerland** for semester exchange **Fall'24**, nominated among **4800+** UG Students
▶ **All India Rank 2158** in **Joint Entrance Exam(Advanced) 2021** among **150,000+** shortlisted candidates
▶ **All India Rank 4781** in **Joint Entrance Exam(Mains) 2021** amongst **1.48 million+** appeared candidates

Competitive Programming

▶ **Codeforces** (id:"rutparn"): Max Rating-**1633(Expert)** and **Codechef**(id:"krp999"): Max Rating - **1788**
▶ Achieved **Global Rank 30** in **Codechef Starters Round 137**(Div-3) among a total of **4000+ participants**
▶ Achieved **Global Rank 31** in **Codeforces Educational Round 935**(Div-3) among **25000+ participants**

Key Projects

Quantinsti's Efficacy of Price Action Trading Strategies- *Inter-IIT Tech Meet 11.0 —* ⊙ *(Feb'23-Mar'23)*
▶ Received **Bronze medal** in the problem statement organized by QuantInsti in Inter-IIT Tech Meet 11.0, 2023
▶ Analyzed chart patterns like **Head & Shoulder** and **Engulfing** for identifying **pivot-points** and **trend reversals**
▶ Conducted **Hypothesis Testing** on **India-Vix** & **Nifty50 Futures** and analyzed **causality** between the two series
▶ Implemented a Strategy based on the hypothesis , giving a **90% return** over 3 years, with a **Sharpe Ratio of 1.31**

India Leaving IPEF - *Eco342A Course Project: Prof. Somesh Mathur —* ⊙ *(Jan24- Feb'24)*
▶ Estimated the **General Equilibrium Impact** of India's withdrawal from **IPEF(Indo-Pacific Economic Framework)**
▶ Used the **Structural Gravity Model** in **Stata** to perform counterfactual regressions and estimate potential impact
▶ Concluded that India's **Exports** can be expected to rise by upto **6.6%** and **GDP** by **0.97%** by withdrawing from IPEF

HallBuddy Web Application - *CS253 Course Project : Prof. Indranil Saha —* ⊙ *(Jan'24-Apr'24)*
▶ Developed,Tested and Deployed a **hostel-management software** tailored for all the student residences at IITK
▶ Implemented functionalities like **Login**, **Guest-room booking**,**Fee-payment** and **Complaint management portals**
▶ Used **HTML**, **CSS**, and **JavaScript** for frontend design, **Django** for backend integration, and **SQLite** database system

Credit Risk Modelling- *Summer Project-SnT Council —* ⊙ *(Apr'22 - May'22)*
▶ Familiarized with libraries like **Numpy**,**Pandas**, **Matplotlib** and performed data binning using **WOE** & **IV**
▶ Implemented the **K-means Clustering** and **PCA Algorithms** from scratch without using inbuilt Python libraries
▶ Trained a **Logistic Regression model** with an **AUPCR of 0.97** to enhance lending practises & mitigate defaults

NISM Certification

▶ Successfully cleared **NISM(National Institute of Securities Markets): Common Derivatives Certification**
▶ Acquired a comprehensive understanding of the organizational framework of the **Indian derivative markets** spanning across **Equity**, **Foreign Exchange**, and **Debt Securities segments**

Relevant Coursework   (*Outstanding Performance*)

Data Structures & Algorithms*	Probability & Statistics*	Intro To ML*	Econometrics*
Software Development*	Game Theory*	Optimization*	Money & Banking*
Linear Algebra & ODEs	Computer Organization	Macroeconomics*	Fundamentals of Computing

Technical Skills

Languages: C++, Python, R, VeriLog | **Libraries:** Numpy, Pandas, Matplotlib, Sci-Py | **Utilities:** Git, Bash, LaTeX

Positions of Responsibility

Teaching Assistant — ESO207(A)
▶ Teaching Assistant under **Prof. Sutanu Guyen** for Data Structures and Algorithms course attended by sophomores
▶ Responsible for **designing and grading assignments** to assist **200+ sophomores** to internalize the course content

Extra-Curricular Activities

▶ Won **Silver Medal** at **Inter-IIT Aquatics Meet-2022** and received **Best Incoming Sportsperson Award**