

EDUCATIONAL QUALIFICATIONS

YEAR	DEGREE	INSTITUTE	CPI / %
2016-2020	B.S. Economics	Indian Institute of Technology Kanpur	8.2/10
2016	Class XII: ISC	St. Paul's College, Lucknow	97.60
2014	Class X: ICSE	St. Paul's College, Lucknow	93.33

WORK EXPERIENCE

Fidelity Investments (Data Science Intern | Asset Management Technology Team)

[May'19-Jul'19]

Objective	• Inspect for market herding behavior among portfolio managers by analyzing 300 funds with total AUM of above \$1T
Approach	• Analyzed 5-year time-series data of portfolio holdings and market factors like EPS projections, short interest ratio, etc. • Used statsmodel in Python to test for Granger causality between changes in portfolio holdings and above factors • Developed a Random Effects Panel Data Model and used its F-statistic to analyze collective significance of factors • Used Savitzky-Golay Filter to smoothen price curves of stocks, found out inflection points to note curvature change • Analyzed momentum herding by observing lead or lag in holdings change with respect to price curvature change
Impact	• Reported statistically significant F-statistic in 5 bottom performing funds which could improve returns by over 10% • Disclosed herding characteristics in a Growth Investor which could lead to abnormal market risk in the institution • Awarded a Pre-Placement Offer (amongst top 3 out of 8 from IIT Kanpur) for an outstanding performance

WorldQuant VRC (Virtual Research Consultant)

[Aug'19-Oct'19]

Objective	• Use statistical techniques to model market movements and develop strategies (alphas) for efficiently trading equities
Approach	• Researched financial literature to seek out sources of alpha and aggregated these signals into robust models • Applied mean-reversion and other trading strategies in different universe, decay and neutralization settings
Impact	• Submitted 10+ alphas with ' Spectacular ' performance using analyst estimates, fundamental and price-volume data

New York Office IIT Kanpur (Machine Learning Intern)

[May'18-Jul'18]

Objective	• Use ML methods to add features like hashtag recommender, text summarizer, etc. on a knowledge-sharing platform
Approach	• Implemented a seq2seq encoder-decoder model with attention mechanism using Tensorflow for text-summarization • Trained a neural network using Keras for hashtag recommendation from text using extractive features (F-score: 78%) • Devised a trending hashtag algorithm and tested it on live tweets downloaded using Tweepy API (F-score: 74%)
Impact	• All 3 models deployed in production (Text Summarizer, Hashtag Recommender and Trending Hashtags)

CERTIFICATION

Deep Learning Specialization by deeplearning.ai on Coursera

[April'20]

Neural Networks and Deep Learning	Improving Deep Networks: Hyperparameter tuning, Regularization and Optimization
Sequence Models	Structuring Machine Learning Projects Convolution Neural Networks

RESEARCH PROJECT

Predicting Stock Price Movements of Banks Using Financial Network Indicators

[Mar'19-Present]

Undergraduate Project, Mentor: Dr. Wasim Ahmad, Department of Economic Sciences, IIT Kanpur

Idea	• Use interdependence between volatility in stock prices of Indian Banks as a feature to predict their price movement
Approach	• Constructed a system-wide inter-bank stock volatility network using a Vector Auto-Regression (VAR) model using R • Applied variance decomposition on the above model to calculate the contribution of a stock to the H-step ahead generalized forecast error variance of other stocks and used that as connectedness measure between them
Results	• 12% rise in accuracy by using above measure as a feature in SVM as compared to correlation-based volatility network

POSITION OF RESPONSIBILITY

Head, Corporate Relations, Entrepreneurship Cell, IIT Kanpur

[April'18-Mar'19]

Leadership	• Directed a team of 460 Campus Ambassadors (CAs) for nationwide promotion of student entrepreneurship • Spearheaded a 3 tier team comprising of 100+ students to manage the year-round activities of the cell
Initiatives	• Coordinated with over 40 alumni to organize Startup Master Class garnering 1000+ participants and 30+ speakers • Organized a city meetup of Startup Jalsa and represented E-Cell IIT Kanpur in their Invest Edition, 2018 • Conducted a session in Lucknow (900+ participants) & 6 entrepreneurial workshops in eSummit'18 (500+ students)
Impact	• Funding of INR 25 Lacs was offered to an emerging startup in the campus during Startup Jalsa Invest Edition • Achieved 50% Y-o-Y growth in enrollment in CA Program, assisted 50 Cas to get internship opportunities in startups

EXTRACURRICULAR ACTIVITIES

Social	• Ensured emotional well-being and smooth transition to campus life for freshers as a Student Guide	[2017]
Managerial	• Assisted in successful conduction of 4th edition of TEDx in IITK with 300+ audience and 6 speakers	[2017]
Others	• Part of a team of 15 executives responsible for the coverage of Inter IIT Sports Meet'16 held at IITK	[2016]
	• Attended and successfully cleared a boot-camp organized by the Finance Discussion Group of IITK	[2018]