# JATIN DEEP SINGH

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## PROFESSIONAL EXPERIENCE

**J. P. Morgan**, New York, NY                                                                   Oct 2021 – Present
*Lead Applied Scientist – Corporate Investment Banking, Treasury and Merchant Services*
- Lead a team of Applied Scientist for developing and deploying AI/ML Solutions in Corporate Investment Banking
- Utilized Natural Language Processing techniques to implement LLM like FinBert for transaction search, provided data insights using Tableau.
- Led the development and deployment of State-of-Art Cash Flow forecasting model using time series modelling Techniques and ensemble learning.
- Strategically conceived a Deep Reinforcement Learning Trading bot, employing state-of-the-art actor-critic methods using pytorch. Achieved a 1.5+ Sharpe through daily portfolio rebalancing.

**American Express**, New York, NY                                                               Feb 2019 – Sep 2021
*Data Scientist –New Accounts Decision Science Team*
- Developed NLP Data Pipelines in Production to ingest, spell correct and standardise free text Employer Intelligence
- Enhanced Discrimination of Production Credit Default Model using Employer Intelligence, Sub-Prime Bureau Intelligence and Trended Intelligence leading to $ 2 Million Net Pre-Tax Income enhancement
- Devised an end-to-end capability to deploy proprietary Amex XGBOOST Credit Default Models to Third Party Platforms leading to acquisition of Premium Prospect with $ 1 Million Net Pre-Tax Income enhancement

**Roc Capital Holdings LLC**, New York, NY                                                       Sept 2018 – Dec 2018
*Data Science Intern –Data Science Team*
- Built Front End Solutions to ingest Property Appraisal PDF's and Extract key Contributing fields
- Developed the First-Generation Credit Default Models using mix of Bureau, Property and Individual Level Attributes

**American Express**, New York, NY                                                               Jun 2018 – Aug 2018
*Data Science Intern –New Accounts Decision Science Team*
- Developed next generation of Credit Variables using Trended Tradeline Data using Pyspark, SQL and Hive
- Used XGBOOST Algorithm and Recurrent Neural Networks to predict Credit Default using Python and Keras

**Cognizant Technology Solutions**, Bangalore, IN                                                Jul 2016 – Jul 2017
*Data Scientist –Analytics and Information Management*
- Worked with Health Care and E-Commerce clients developing tailored Artificial Intelligence and Machine Learning Algorithms specific to business needs
- Devised a Personalised Sequential Activity Generator for IoT wearables in python using Markov Decision Process Algorithm providing prescriptive analytics for fitness apps dashboards dominated with descriptive analytics solutions
- Developed Clustering and Time Series Forecasting Models to predict monthly demand on Store Keeping Unit level using python and Tableau for a leading pharma company in South Korea.

## EDUCATION

**Columbia University**, New York, NY                                                            Aug 2017 - Dec 2018
**Master of Science in Financial Engineering**, GPA: 3.8/4
Current coursework: Big Data in Finance, Machine Learning, Reinforcement Learning, Monte Carlo Simulation, Continuous Time Models, Partial Differential Equations, Optimization Models, Stochastic Models, Foundations of Financial Engineering
Honours: Recipient of **Columbia Financial Engineering Graduate Fellowship**

**Indian Institute of Technology**, Gandhinagar, IN                                             Jul 2012 – Apr 2016
**Bachelor of Technology, Electrical Engineering,** Institute Gold Medallist, GPA: 9.5/10
Relevant coursework: Calculus, Computing in C, Differential Equations, Linear Algebra, Complex Analysis, Real Analysis, Probability and Random Processes, Number Theory
Honours: Selected for **S. N. Bose Scholars Program 2015** conducted by Indo-US Science and Technology Forum(IUSSTF), Recipient of **Award** for the best performance in core courses of Mathematics from IIT Gandhinagar

## SKILLS

**Coursera Certifications:** Data Visualization and Communication with Tableau, Neural Networks and Deep Learning, Introduction to Data Science in Python, Applied Plotting, Charting & Data Representation in Python, Applied Machine Learning in Python

**Tools and Programming Languages:** PySpark, Python, Keras, Tableau, HIVE, SAS, R, C/C++ , MATLAB, Microsoft Excel