# SHREEJIT VERMA

Learning never exhausts the mind So, make yourself strong and resourceful that you can be an asset to the society.

### WORK EXPERIENCE

## **Senior Software Engineer**

Bank of America (BACI) 01/2020 — 07/2021

CHENNAI, TAMIL NADU (INDIA)

Developer in Post Trade Processing Working in Trade Matching, Post Processing, Execution and Storage of Trades. Programmed several services in Total Return Swap Bonds, Futures Options and Futures Cash (line of businesses) under Post Trade Processing Team; Migrated complete code base to Python 3.8

#### Senior Tech Associate Bank of America (BACI)

06/2018 — 12/2019

CHENNAL TAMIL NADU (INDIA)

Data Architect and Strategist in AI and Machine Learning Designed Machine Learning & AI Architecture Framework also added several use cases in ML & AI field. Maintained Big Data Sandbox used by 1200+ associates containing tools like Hadoop, Hive, Spark, and Kafka

#### Machine Learning Engineer (Summer Intern)

SCOPE, VIT UNIVERSITY 05/2017 - 07/2017

VELLORE, TAMIL NADU (INDIA)

SCOPE is School of Computer Science and Technoloav in VIT University. Vellore

Built QS Rank Predictor (to predict university ranking), VIT Research Portal (to help students in publishing research paper), and Faculty Quality Control (for better monitoring and performance review of faculties.)

# **EDUCATION**

WORLDQUANT UNIVERSITY 12/2021 — Present

NEW ORLEANS,(USA)

# **Master of Science in Computational Finance**

CARNEGIE MELLON UNIVERSITY, TEPPER SCHOOL OF BUSINESS 06/2021 - 11/2021 NEW YORK, (USA)

#### BTech (Computer Science and Engineering) 8.78(CGPA) VELLORE INSTITUTE OF TECHNOLOGY

06/2014 — 06/2018

VELLORE, TAMIL NADU (INDIA)

# **Senior Secondary School**

DEVASTHALY VIDYAPEETH 04/2011 - 04/2013 BALIA, U.P (INDIA)

**Higher Secondary School** 9.8(CGPA) CHAPRA CENTRAL SCHOOL CHAPRA, BIHAR (INDIA)

02/2005 - 04/2011

# **ACHIEVEMENTS**

### **GLOBAL RECOGNITION GOLD AWARD**

Led ML & AI awareness program. Conducted brainstorming session among app teams, and identified use cases having probable AI/ML solutions. Organized 4 big events during this program that was attended by 2500+ employees

#### **CROWDATHON 2 (WINNER)**

Built a machine learning model (Data Validity Rules Predictor) which predicts data validation rules; Reduced 40 Human hrs./week and helped in improving data quality standards.

### **GLOBAL RECOGNITION SILVER AWARD**

Designed Machine Learning & AI Architecture Framework also added several use cases in ML & AI field.

# GLOBAL RECOGNITION GOLD AWARD

For significant contribution in AI/ML Organized 4 big events conducted from Feb to June 2019 attended by 2500+ people.

# GLOBAL RECOGNITION SILVER AWARD

For contribution in Total Return Swap Bonds, Futures Options and Futures Cash (Line of Businesses) under Post Trade Processing Team.



- +919994016922
- www.shreejitverma.com
- www.linkedin.com/in/shreejitverma
  - www.github.com/shreejitverma

# SKILLS

<u>NILL5</u>						
PYTHON JA	VA C++	R	SQL	MA	TLAB	
JAVASCRIPT	NODEJS	REACT JS		DJA	DJANGO	
MACHINE LEATE	IINE LEATRNING BIG DATA				AI	
BLOCKCHAIN	STATIST	TICS	SPARK	LINUX		
ALGORITHMS	DATA STRUCTURES			MS EXCEL		
PARALLEL PROCESSING VB SCRIPTE				٩G	AGILE	
DISTIBUTED COM	FI	FINANCE		DOOP		

#### PROJECTS

#### Post Trade Processing

Developed products using python to enhance storing, processing, enrichment, validation, matching, and execution of trades handled by QUARTZ platform; storing trades in object-oriented database (SANDRA) in C++

#### AI/ML Architecture Framework

Designed ML & AI Platform Architecture for building projects in ML & AI from scratch with Data Visualization, Data Cleaning, Data Modelling and Model Evaluation tools available in the environment. Being used by 1200+ associates to engineer ML & AI models

#### **Data Validation Rules Predictor**

Data Quality is the major requirement which Banks has to maintain. I built a machine learning model which predicts Data Validation Rules saving 40 Human hrs./week.

#### **Blockchain in Retail**

Developed BLOCKCHAIN system for securing and simplifying retail transactions. It had currency conversion, hashing and matching algorithms. Using Smart contracts, Nodejs, Homebrew, Trufffle, MetaMask, Ganache web3j, GETH, Solc and Puppeth

#### FULL STACK DEVELOPMENT

Implemented prototypes of Amazon, Twitter, YouTube, Spotify, Zoom, and LinkedIn with all the core functionalities to get experience in full stack and also understand system design concepts. Using JavaScript, Nodejs, React, Django, Firebase, MySQL, PHP, HTML, CSS

#### **Predicting Stock Price Fluctuation**

Implemented web-crawling algorithm to extract data from social media platforms, and applied NLP to do sentiment analysis. Created a Recurrent Neural Network and applied topic distribution to predict market sentiment

#### **OS RANK PREDICTOR**

Built Neural Networks and use Data Science to Predict QS World Ranking of Universities. Also, the model gave suggestion on which areas needs improvement. The model also gave suggestions on areas to improve; VIT CS department achieved a world ranking within 301 - 400 in 2020

#### **ROOM AVAILABILITY PREDICTOR (RAP)**

Integrated Optical Character Recognition with Artificial Neural Networks for creating Room Availability Predictor for VIT students. The project simplified Hostel Room Counselling, and was used by 5000+ students

#### **Machine Learning Projects**

Machine Learning fundamentals by ANDREW NG. Built Hand Writing Recognition, Optical Character Recognition, Cost Optimization Algorithms, Image

Data Compression. Using MATLAB, R, and OCTAVE

(github.com/shreejitverma/MACHINE-LEARNING)

INTERESTS

NI LINESI S				
READING	MUSIC	SPIRITUALITY		GYM
COOKING	DANCING		FINANCE	ML/AI

89.4%

### **COURSES AND CERTIFICATES**

- Chartered Finance Analyst Level 1 (CFA, USA)
- Bloomberg Market Certification
- Investment Foundations Program (CFA, USA)
- Financial Engineering and Risk Management Part I (Columbia University)
- <u>Financial Engineering and Risk Management Part II</u> (<u>Columbia University</u>)
- Machine Learning for Trading Specialization (Google <u>Cloud Platform, New York Institute of Finance</u>)
  - Introduction to Trading, Machine Learning & <u>GCP</u>
  - <u>Using Machine Learning in Trading and</u> <u>Finance</u>
  - <u>Reinforcement Learning for Trading</u> <u>Strategies</u>
- Investment Management Specialization (University of Geneva, UBS)
  - <u>Understanding Financial Markets</u>
  - Meeting Investors' Goals
  - o Portfolio and Risk Management
  - Securing Investment Returns in the Long Run
  - <u>Planning your Client's Wealth over a 5-year</u> <u>Horizon</u>
- Trading Strategies in Emerging Markets Specialization (Indian School of Business, ISB)
  - Trading Basics
  - o <u>Trading Algorithms</u>
  - o <u>Advanced Trading Algorithms</u>
  - Creating a Portfolio
  - <u>Design your own trading strategy –</u> <u>Culminating Project</u>
- Finance & Quantitative Modeling for Analysts Specialization (University of Pennsylvania, Wharton)
  - Fundamentals of Quantitative Modeling
  - Introduction to Spreadsheets and Models
  - <u>Financial Acumen for Non-Financial</u> <u>Managers</u>
  - Introduction to Corporate Finance
- The Complete Financial Analyst Training & Investing Course (Udemy)
- Corporate Finance and Valuation (NYU STERN, Aswath Damodaran)
- <u>Algorithms, Part I (Princeton University)</u>
- <u>Algorithms, Part II (Princeton University)</u>
- Coding for Everyone: C and C++ Specialization (University of California, Santa Cruz)
  - <u>C for Everyone: Programming Fundamentals</u>
  - <u>C for Everyone: Structured Programming</u>
  - <u>C++ For C Programmers, Part A</u>
  - <u>C++ For C Programmers, Part B</u>

- Machine Learning (Stanford University)
- Advanced R Programming (Johns Hopkins University)
- Deep Learning Specialization (Deeplearning.ai)
  - <u>Neural Networks and Deep Learning</u>
  - Improving Deep Neural Networks: <u>Hyperparameter tuning, Regularization and</u> <u>Optimization</u>
  - <u>Structuring Machine Learning Projects</u>
  - <u>Convolutional Neural Networks</u>
  - Sequence Models
- <u>Applied Data Science with Python Specialization</u> <u>(University of Michigan)</u>
  - Introduction to Data Science in Python
  - <u>Applied Plotting, Charting & Data</u> <u>Representation in Python</u>
  - Applied Machine Learning in Python
  - Applied Text Mining in Python
  - Applied Social Network Analysis in Python
- Big Data Specialization (University of California San <u>Diego</u>)
  - Introduction to Big Data
  - Big Data Modeling and Management Systems
  - Big Data Integration and Processing
  - Machine Learning with Big Data
  - Graph Analytics for Big Data
  - Big Data Capstone Project
- Data Science: Statistics and Machine Learning Specialization (Johns Hopkins University)
  - Statistical Inference
  - <u>Regression Models</u>
  - Practical Machine Learning
  - Developing Data Products
  - <u>Data Science Capstone</u>
- Data Science: Foundations using R Specialization (Johns Hopkins University)
  - <u>The Data Scientist's Toolbox</u>
  - <u>R Programming</u>
  - <u>Getting and Cleaning Data</u>
  - Exploratory Data Analysis
  - <u>Reproducible Research</u>
- Data Structures and Algorithms Specialization (University of California San Diego)
  - <u>Algorithmic Toolbox</u>
  - <u>Data Structures</u>
  - Algorithms on Graphs
  - Algorithms on Strings
  - Advanced Algorithms and Complexity
  - <u>Genome Assembly Programming Challenge</u>