



Anvay Varerkar
Chemical Engineering
Indian Institute of Technology, Bombay

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B.Tech.
Gender: Male
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Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2021	8.13

Awarded a Change of Branch to Chemical Engineering Department for exemplary academic performance in the first year ('18)

PROFESSIONAL EXPERIENCE

Piramal Enterprises | Data Analytics (Apr'20-Jun'20)

Objective	<ul style="list-style-type: none"> Forecasting sales to Piramal Pharma customers to guide inventory management and production
Approach	<ul style="list-style-type: none"> Visualised data in interactive charts with Plotly to gain insights into 5K data points of historical sales Implemented time series analysis in Python with ARIMA, Holt, RFRs and Recurrent Neural Networks Optimised parameters for top-grossing clients; gauged performance with walk-forward evaluation
Conclusion	<ul style="list-style-type: none"> Achieved 90%+ accuracy on individual high-value customers accounting for one-fifth of the total sales

SBNRI | Software Engineering | Early Stage FinTech Start-up (Jun'20-Aug'20)

Awarded a **Letter of Recommendation** from the internship guide for exemplary work contributing directly to production

- Worked on **Django's REST APIs** for feature development, **authentication**, **throttling**; end focus on unit **testing** of services
- Built containerised applications using **Docker Compose** and **Networks**, ensuring a uniform environment in development
- Engineered a **90% reduction** in the processing time of tasks using **asynchronous handling** with **Celery** and **RabbitMQ**
- Integrated **Firestore** Remote Config, **RSA**, **AES encryption** for MPIN transfer; implemented **TOTP** for admin authentication

Bombay Stock Exchange | Big Data Analytics (Jun'19)

- Handled implementations of **Apache Hadoop**, **Impala**, **PySpark** to retrieve, manage and analyse multiple terabytes of data
- Implemented a model to identify segments which could be targeted to **increase revenue** with **K-Means Clustering**

KEY PROJECTS

Algorithmic Trading System and Dashboard | Software Development and Analytics | Self Project (Jun'20-Aug'20)

- Designed and deployed a **trading system** with a **Python** codebase on **AWS Elastic Cloud Compute** for optional 24/7 uptime
- Integrated **Zerodha KiteConnect REST APIs**, autonomously placing **equity** and **option** orders, using the generated triggers
- Deployed a **back-testing** dashboard with **Dash**; Utilised **Firestore** Cloud Messaging to integrate a self-made **android app**
- Effectuated a **GUI** with configurable models like **LSTMs**, **ARIMA** and displayed results in the dashboard for use in live trading
- Implemented multiple modular tools like **Black Scholes**, **Markowitz** model along with metrics like **Sharpe** and **Sortino ratio**

Fundamental Analysis of Annual Reports | Accounting & Finance Course-Project | Prof. Varadraj Bapat (Aug'18)

- Studied the **annual report** of Asian Paints to identify the notable changes caused by first-time adoption of the **IndAS 101**
- Compared two **large-cap** companies in the automotive sector with various fundamental factors to gauge financial health
- Analysed the **P&L**, **Cash Flow Statement** and **Balance Sheet** and calculated ratios like **P/E**, **EPS** and **quick ratio** in **MS Excel**

Movie Recommender System - Boltzmann Machine | Self Project (May'20)

- Implemented **Gibbs Sampling** and **Contrastive Divergence** in **Python** for use in the **energy-based** deep learning model
- Developed an **RBM** from scratch using **PyTorch** and trained it on a dataset of **100k+** user ratings; obtained accuracy of **80%**

POSITIONS OF RESPONSIBILITY

Core Team Member | Alumni Student Mentorship Program | Student Alumni Relations Cell (Apr'19-Apr'20)

Led a team of 6 coordinators; part of a 60-member team working with the Dean ACR Office and the Alumni Association

Highlight: Pioneered the automation of long-standing critical procedures; greatly raised efficiency and quality of work

Endeavours	<ul style="list-style-type: none"> Spearheaded year-long interaction between 300+ alumni and 500+ students across 10+ sectors Organised multiple shadow programs; including one to Bombay Stock Exchange with 30+ students
Initiatives	<ul style="list-style-type: none"> Integrated a CRM System with Selenium to monitor mentor-student interaction on a single platform Accelerated mentor allocation by 50% using MS Excel Macros, resulting in better quality of matches Revamped the ASMP registration process, resulting in a 100% y-o-y increase in student applications

Student Mentor | Department Academic Mentorship Program (Apr'19-Present)

COURSES	DEVELOPMENT		DB & UTILITIES		CERTIFICATIONS
Accounting & Finance	Python, C++	PySpark	SQL	Hadoop	Deep Learning, Big Data
Data Structures & Algorithms	Docker	Celery	Excel	MongoDB	Complete Financial Analyst
Numerical Analysis	Django	RabbitMQ	Git	Matlab	Python for Data Science & ML

EXTRACURRICULARS

Social	Raised money for charity in a team of 3 people with a temporary business of producing candles	('15)
Cultural	Represented IIT-B at the Umang Fest, NMIMS (2017) in a band performance as the keyboardist	('17)
	Performed in the Music General Championship, Goonj as lead guitarist of the Hostel - 9 band	('19)
Other	Participated in a mentored project at IIM-A to research and develop the structure of a social app	('15)