

# ABHISHEK SHRINGI

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## Education

Indian Institute of Technology, Delhi

Bachelor of Technology in Chemical Engineering

CGPA - 9.081/10

2018 – 2022

## Scholastic Achievements

- **Department Rank 2:** Amongst 120+ B.Tech. & M.Tech. Students of 2018 Batch in Chemical Engineering Department
- **Director's Merit Award: Top 7%** academic performer among 1000+ students across the institute in II and VI Semesters
- **Inox Fellowship Award:** Conferred twice for exceptional academics among 400+ peers within the department[2019-2021]
- **UG Teaching Assistant:** Selected for course Numerical Methods in Chem. Eng., tutored and advised 150+ students[2021]

## Work Experience

Goldman Sachs Asset Management | Quantitative Strategist in Fundamental Equities Team

Jul 2022 – Present

### ESG Investing:

- Developed an ESG metrics analysis dashboard, enabling **data-driven** decision-making and providing comprehensive insights into Environmental, Social, and Governance factors at portfolio level
- Optimized dashboard performance by **20%**, by efficiently leveraging **REST APIs** and **MemSql** Database, resulting in faster data retrieval and real-time ESG metric updates
- Established **robust monitoring mechanisms** to track regulatory compliance and engagement activities, ensuring strict adherence to industry standards and bolstering transparency

### Theme-based Investing:

- Pioneered a **multi-step regression-based** approach to accurately capture portfolio-level exposure to thematic equity baskets, enhancing investment strategies for improved returns and risk management
- Designed and implemented **NLP-based** algorithms to intelligently filter and identify relevant themes within the dynamic market landscape, streamlining thematic investment opportunities.
- Crafted an intuitive and efficient **user interface (UI)** for in-depth analysis of thematic exposures and meticulous screening of thematic investment baskets, simplifying decision-making processes for Portfolio Managers

SRF-CTG | Process Engineering & Design Intern within the Technology Transfer Group

May 2021 - Aug 2021

- Simulated production & heat transfer analysis of continuous flow reactor(PFR) for exothermic reactions using python
- Executed review of plausible applications of ML in chemical industry viz. **fault detection**, **root cause analysis** etc.
- Prototyped cost-efficient **virtual flow metering(VFM)** solutions based on first principles & data-driven modeling

## Research Projects

Deep learning based diagnosis of Neuromuscular Diseases | Prof. Hariprasad Kodamana    August 2021 - May 2022

- Developed an automated deep learning based segmentation - classification pipeline to detect NMDs in thigh muscles
- Built a robust model using **U-Net** & Facebook's **Detectron** Model for segmenting Region of Interest(ROIs) in MRIs
- Achieved an accuracy of **95%** on segmentation utilizing metrics such as Intersection Over Union (IoU) & Dice Coefficient

Transition flow study of polymeric solutions in pipe | Prof. Paresh Chokshi

May 2020 - Dec 2020

- Employed **linear stability analysis** in MATLAB to predict onset of transition regime in the flow of polymeric solutions
- Replicated the results for **Oldroyd-B** Model polymeric solutions; Extended the analysis to non-linear **Rolie-Poly** Model
- *Received Letter of Recommendation for extraordinary dedication and commendable contribution to the project*

Predicting velocity profile in the wake of circular cylinder | Prof. Jyoti Phirani

Apr 2021 - May 2021

- Generated training dataset by performing **CFD simulations** of vortex shedding around a cylinder using **Open FOAM**
- Implemented fusion convolutional neural network in Keras, to evaluate velocity field from pressure around cylinder
- Achieved an absolute prediction error of the order of **0.01** for **95%** cases; Extended framework to predictions of 3D flow

## Positions Of Responsibility

Co-Curricular & Academic Interaction Council

Sep 2020 - Aug 2021

- **Department Convenor:** Unanimously elected to the highest council for academics by 120+ students in the department
- Proposed **administerial changes** in course policies in lieu of COVID'19; 90% of proposals were implemented in practice
- **BAP Student Representative:** Selected amongst a batch of 1000+ students by Dean Academics Surveyed 500+ students to review changes and incorporate feedback of academic policies; proposed changes were accepted