

# Rohan Kumar

Email: k.rohan@iitb.ac.in k.rohan3496@gmail.com | Phone: (+91) - 9004518616

## EDUCATION

### Indian Institute of Technology (IIT) Bombay

[’18]

Bachelor of Technology, Chemical Engineering (With Honors): 8.17/10.0

Recipient, Chemical Engineering Department Citation (3/124 students)

Placed with **MasterCard Advisors**

### Delhi Public School Haridwar

[’14]

Intermediate: 96%, Matriculation: 10.0/10.0

## INTERNSHIPS

### Unilever, United Kingdom

[May’17 - Jul’17]

*Demand Planning, Supply Chain Management | Unilever Leadership Internship Programme*

- **Project 1:** Automating demand volume forecast for products on promotions
  - Analysed demand history for 2500+ promotions across 12 categories to identify customer and product specific trends
  - Delivered **300** bps accuracy improvement with **50%** reduction in bottom-up forecast work-hours for **30** employees
- **Project 2:** Realigning product hierarchy trees
  - Developed end-to-end Excel tool to **realign** product hierarchies by improving correlation scores of forecast groups
  - Suggested new method delivering **40%** decrease in coefficient of variance of forecast groups to increase accuracy

### Purdue University, USA

[May’16 - Jul’16]

*Personalised Medicine | Guide: Prof. Doraiswami Ramkrishna*

- **Project 1:** Enhancing anti-cancer drug efficiency
  - Utilised **machine learning** to develop methodology for identifying optimal dosage size with no side effects
  - Implemented decision trees and regression to identify top 30 biomarkers responsible for side effects from set of 512
- **Project 2:** Modelling response of cancer cells to drug attack
  - Developed pharmacodynamic model investigating response of cancer cells to drug attack in all stages of cell cycle
  - **Optimised** dose size and timing by identifying **oscillations** and modelling peaks as timing of next dosage

## PROJECTS

### Microsoft code.fun.do | Awarded *Pre-Placement Interview* at Microsoft

[May’15 - Jul’15]

- Awarded among **top 5** from 53 teams across **15** colleges in India; featured in article on Microsoft India News Center
- Developed Universal Windows App to simulate a dynamic food web with real time interactions for user controls

### Game Engine | Institute Technical Summer Project

[May’15 - Jul’15]

- Programmed a game engine in Python, implemented team strategy, player positions and responsibilities
- Applied object oriented **design patterns** (decorator, builder, observer, strategy) for dynamic function allocation

### Analysis of Burger’s Equations | Course Project

[Oct’15 - Nov’15]

- Solved Burgers Equation using Crank-Nicolson, Lax-Friedrichs, explicit and implicit methods
- Analysed applications of Burgers Equation to model traffic flow conditioned on fluid mechanics

## LEADERSHIP ROLES

### Overall Coordinator, AZeotropy 2018

*India’s largest intercollegiate Chemical Engineering Symposium*

ROLE	<ul style="list-style-type: none"><li>• Single-handedly led 3-tier team of 80+ members executing 50+ events catering to 5000+ students</li><li>• Spearheaded operations, end-to-end logistics, budget allocation and tie-ups with chemical industries</li></ul>
IMPACT	<ul style="list-style-type: none"><li>• Awarded <b>Department Citation</b>, <i>highest</i> honor for organisation excellence at department level</li><li>• <b>38%</b> y-o-y increase in national centers for elimination competitions; <b>20%</b> increase in participation</li><li>• Generated international research collaboration and student exchange opportunities for the department</li></ul>

### Marketing Head, AZeotropy 2017

[Apr’16 - Mar’17]

*Part of 3-tier team of 15 core members and 80+ volunteers in charge of execution of symposium*

- Achieved **18%** y-o-y increase and **highest** budget in 11 years; personally delivered **62%** of monetary sponsorship
- Partnered with Mersen Ltd. to conduct Chem-O-Philia quiz for 1200 students across **18** centres (**50%** y-o-y increase)

## ACHIEVEMENTS

ACADEMIC	<ul style="list-style-type: none"><li>• Selected for the <b>KVPY</b> Fellowship (Kishore Vaigyanik Protsahan Yojana)</li><li>• Awarded the prestigious <b>NTSE</b> Scholarship (National Talent Search Examination)</li></ul>	[’13] [’10]
TECHNICAL	<ul style="list-style-type: none"><li>• <b>Skills:</b> C++,C#, Python, R, MATLAB, Java, Mathematica, <math>\text{\LaTeX}</math>, Git</li><li>• <b>Convener</b>, Web &amp; Coding Club: conducted open-source and web development workshops</li><li>• Attended <b>National University of Singapore</b> computing camp for int’l high school students</li></ul>	[’15-’16] [’10]