SHUBHAM GUPTA

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EDUCATIONAL QUALIFICATION   *after 5th semester

Year	Degree	Institution	Score
Present	B.Tech. Chemical Engineering	Indian Institute of Technology Kanpur	7.85* CPI
2017	AISSCE	Nalanda Academy, Kota	85.4%
2015	AISSE	S.R. Public School, Kota	10.0/10.0

SCHOLASTIC ACHIEVEMENTS

- Attended **VIJYOSHI CAMP**, mentored by Nobel Laureates, conducted by IISc Bangalore — 2016
- Awarded **Kishore Vaigyanik Protsahan Yojana (KVPY)** Fellowship, DST, Government of India — 2015
- Achieved **11th rank** in Indian National Earth Science Olympiad, Geological Society of India, Govt. of India. — 2015
- **National Talent Search Examination** (NTSE) first stage qualified, NCERT, Government of India — 2015
- Attended Training Camp of Indian National Earth Science Olympiad, Geological Society of India, Govt. of India — 2015

PROJECTS

- **Genetic theory of code-switch evolution** (*Prof. Mayank Singh, CSE Department, IIT Gandhinagar*)   *Sept'20-Ongoing*
  - Adapted with the state-of-the-art technologies used in **Sentence Simplification** to later work on code-mixed data
  - Operated **LaBSE**, a pre-trained multilingual **s-bert model,** to generate sentence embedding of initial code-mixed data
  - Utilised **Genetic Algorithm** to optimise code-mixed sentences using bilingual constraints like **Free Morpheme**
- **Text-Based Analysis of Financial Constraints** (*Prof. Suman Saurabh, IME Department, IIT Kanpur*)   *Jul'20-Aug'20*
  - Objective was to quantise **Financial Constraints** and study its impact on small-cap companies in Indian market
  - Used NLP techniques like **Tokenisation, Lemmatisation,** processed over **400** machine-readable annual reports of firms
  - Differentiated between **equity, debt, private-placement focused delay** of investment by finding specific words in data
- **Stock Price Prediction using LSTM network** (Self Project)   *Jun'20-Jul'20*
  - Optimised an LSTM network to predict stock prices using Convolutional 1D layer, Bidirectional LSTM and Dense Layers
  - Improved the mean absolute error form **0.94** using only LSTM network to **0.66** working on seven years of data
- **RNA Gene Expression Data Analysis using PCA** (Self Project)   *Jun'20-Jul'20*
  - Identified the Adenocarcinoma tumour and remove neuroendocrine tumour using PCA (Principal Component Analysis)
  - Applied K-Means Clustering algorithm to analyse the effect of interference in Pancreatic Adenocarcinoma tumours
- **Trading Strategies and Backtesting** (Sachin Angural, Finance Discussion Group, IIT Kanpur)   *Dec'19-Jan'20*
  - Learnt about various strategies like Momentum and Pairs Trading various KPIs and technical indicators
  - Formulated strategies to optimise a portfolio by backtesting using python and historical data
- **Website Development of Chemical Engineering Dept.** (*Prof. Rahul Mangal, CHE Department, IIT Kanpur*)   *Aug'19-Feb'20*
  - Revamped existing **Website of Department of Chemical Engineering**, IIT Kanpur using HTML and CSS
  - Designed the Front-End keeping in mind the user interactivity with website and hence improving user experience
- **Destroyer T–360** (Prof. Mohit Law, Mechanical Engineering, IIT Kanpur)   *Aug'19-Nov'19*
  - Developed a Ballistic Tank conceptualised on Hand-Crack mechanism that could change its azimuth and elevation
  - Constructed the plan on AutoCAD, used 3-D printed products, how do you know coding and basic machining
  - The firing mechanism of the tank was voice controlled which used IOT components: HC – 05 Bluetooth module

TECHNICAL SKILLS

Programming/Scripting: C, C++, Python, MATLAB, R, LaTeX.   **Databasing:** MySQL.

Web Development: HTML, CSS, Javascript.   **Utilities & Tools:** Git, AutoCAD, AutoCAD Inventor.

RELEVANT COURSES

Chemical	Thermodynamics, Fluid Mechanics, Mass Transfer, Heat Transfer, Chemical Reaction Engineering
Engineering	Computational Methods in Programming, Manufacturing Processes, Introduction to Electronics
Others	Fundamentals of Computing, Linear Algebra & Differential Equations
Online	Mathematics for ML, Sequence Models, NLP in Tensorflow, Equity Portfolio Management

POSITION OF RESPONSIBILITY

Coordinator, Finance & Analytics Club (2020-21)

Leadership	• Lead a team of **25 members**, managed FB group of **2.6K members** & a **budget of 95K** to promote finance • Conducted projects, discussion talks, seminars and workshops on various fields in finance and analytics
Initiatives	• Organised **month long workshop** on Algo Trading, ML in Finance & Derivative Markets, **600+ participated** • Organised **five, 2-month long summer projects** on various innovative methods and techniques in finance

Department Undergraduate Committee Nominee, Chemical Engineering Dept.(2020-21)

Objective	• Advise students about their curriculum and academic opportunities in the Chemical Engineering Dept. • Monitor the progress of academically weak students and tackle any academic problem faced by students
Initiatives	• Organise industrial trips and programming sessions for **150+ students** to benefit them in core opportunities • Offering projects in a way that is time effective for professors and bridges the gap b/w students and dept.

Student Guide, Counselling Service Team (2019-2020)
- Guided and mentored **4 freshman students** in acclimatising to the environment of the institute
- Successfully organised Orientation Program for **900+ freshmen** working in a team of **175 student guides**

EXTRA CURRICULARS

- Won a **Silver Medal** at inter hall badminton competition (Inferno), 2019
- Completed **Hacktober Fest 2019**, created plugin for personal assistant for macOS/LINUX telling user's current location