Achyut Kumar Verma

Pre Final Year Undergraduate
Department of Chemical Engineering

✉ akverma@iitk.ac.in
☎ +91-9110026902

Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
July'17 - Present	B.Tech	Indian Institute of Technology, Kanpur	7.2/10
2016	JAC(XII)	Mrs. KMPM Inter College, Jamshedpur	82.4%
2014	JAC(X)	Saraswati Vidya Mandir, Jamshedpur	85.6%

Scholastic Achievements

- Ranked in National Top 5% (among 1.6 lakh shortlisted candidates) in IIT-JEE Advanced 2017.
- Ranked in National Top 2% (among 1.2 million candidates) in JEE Mains 2017.

Key Projects

- **TMDB Box Office Prediction** (*Mar'19- Jul'19*)
  Supervisor: Prof. Faiz Hamid, *Dept. of Industrial and Management Engineering*   *IIT Kanpur*
  - Predicted overall worldwide box office revenue using metadata on over 7,000 past films from The Movie Database (TMDB).
  - Preprocessed the data using Data Cleaning, Integration & Transformation of variables by carrying out Correlation & statistical analysis on more than 3 thousand data points.
  - Employed various regression techniques namely **linear regression**, **random forest**, **KNN Regressor**, **Neural Network**.
  - The **Gradient Boost Regressor** Model (using Engineered Features) achieved the best accuracy with RMSL error of 2.27
    All the above mentioned steps were performed using **Python.*
- **Heat Exchanger Design** (*May'19- Jul'19*)
  SimuTech Club, IIT Kanpur   *IIT Kanpur*
  - Simulated the different type of Heat Exchanger using **MATLAB** software.
  - Optimized the heat exchange output while minimizing the overall cost.
  - Analysed all the results for both parallel and counter flow heat exchanger.
- **River Surface Cleaner** (*Aug'18- Nov'18*)
  Supervisor: Prof. Arvind Kumar, *Dept. of Mechanical Engineering*   *IIT Kanpur*
  - Designed a water surface cleaning, floating machine in Autodesk Fusion 360.
  - Implemented the design using various manufacturing processes such as Milling, Lathing, Drilling, Welding, etc. to make a working model (in a team of 5).
- **Flying Bird Model** (*Jan'19- Apr'19*)
  Supervisor: Prof. Shobit Omar, *Dept. of Material Science Engineering*   *IIT Kanpur*
  - Designed a flying bird model in Autodesk Fusion 360.
  - Implemented the design using various manufacturing processes such as Casting, Welding, Brazing, etc. to make a working model (in a team of 5).

Work Experience

- **Summer Of Code**, sponsored by Nutanix and UPSIDC (*May'19-Jul'19*)
  Full Stack Developer   *IIT Kanpur*
  - Created a web based platform for communication between teachers and parents for guidance of their wards.
  - Parents receive ward's absent notifications along with attendance details, marks and other important circulars directly from the class teacher instantaneuosly.
  - Used **Ionic** framework to create app and deployed database on **firebase**.

Technical Skills

- **Languages:** C, C++, HTML, CSS, Python(basic)
- **Software and Utilities:** Git, Visual Studio, LaTeX, MATLAB, OCTAVE, Jupyter Notebook

Positions of Responsibility

- **Company Coordinator** (*Aug'18-Apr'19*)
  Student Placement Office   *IIT Kanpur*
  - Coordinated with a 4-tier students placement team of the campus to ensure a smooth conduct of the company placement procedures.
  - Managed logistics of shortlisting tests, interviews for the recruiting process of companies like Tower Research, Microsoft, Flipkart etc.
- **Student Nominee, Humanities & Social Sciences Department** (*Feb'19-Ongoing*)
  Departmental Under Graduate Committee   *IIT Kanpur*

- Represented student interests of the academic disciplines of **Economics, Sociology, Psychology, Art**, etc. in the committee.
  - Acted as a link between students and administration and also handled problems faced by students in their academic programmes.
- **Academic Mentor** *(May'18-Apr'19)*
  Counselling Service Team *IIT Kanpur*
  - Mentored a group of freshmen in the compulsory **Chemistry** course, and taught in classes at institute and hostel levels.

Relevant Courses

Maths and Computing	Chemical Engineering
Data Mining and Knowledge Discovery	Fluid Mechanics and Rate Processes
Machine Learning, Coursera, Stanford university*	Thermodynamics
Probability and Statistics	Chemical Process Industries
Linear algebra and Differential Equations	Heat Transfer*
Data Structure and Algorithms*	Mass Transfer*
Introduction To Electronics	*Ongoing*

Extra-Curricular Activities

- Achieved 9th rank in a group of 350 boys in Sixth India Open Yoga Championship, 2010.
- Successfully organised the Fifth International Day of Yoga, 2019 (in a team of 20) at IIT Kanpur.
- Enthusiast in Boxing, Swimming, Skating, Hockey, Volleyball & Yoga.