RESUME -
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RESEARCH INTERESTS

➢ Computational Engineering
➢ Data Science
➢ Systems Engineering

EDUCATION

Program (Minor)	Institute	Year	CGPA/%
B.Tech Chemical Engineering (Systems Engineering)	IIT Madras	2021	8.38
Class XII	Maharishi Vidya Mandir Senior Secondary School	2017	96.8
Class X	Maharishi Vidya Mandir Senior Secondary School	2015	10.0

SCHOLASTIC ACHIEVEMENTS

➢ Awarded N.E.S.T SR-I Scholarship with an All India Rank of 6 - **2019.**
➢ Awarded N.E.S.T SR-I Scholarship with an All India Rank of 12 - **2018**.
➢ Secured All India Rank of **784 in JEE-MAIN Exam** - **2017**.
➢ Secured All India Rank of **2119 (Top 1%) in JEE-ADVANCED Exam** - **2017**.
➢ Awarded Merit certificate from NCERT for scoring **100% in 12th Class Mathematics** - **2017**.
➢ Awarded National Talent Search Examination (NTSE) Scholarship by National Council for Educational Research and Training (NCERT) - **2015**.

TECHNICAL SKILLS

➢ **Languages** - C, C++, Python, R, HTML, CSS
➢ **Tools** - MATLAB, Simulink, ASPEN, Automation Anywhere, SAP, MongoDB, PowerBI, Power Query

INTERNSHIPS AND PROJECTS

➢ **Facial Emotion Detection using Deep Learning** - Sept 2020 - Present

Guide**:** [Dr Rajagopalan Srinivasan](#) - Chemical Engineering - IIT Madras

- Utilized a **Two Stream Neural Network** consisting of Spatial and Temporal streams to take **Micro-Expressions** into account for detecting facial emotions.
- Showcased the differences in performance of 2 commonly used Emotion Detection Models on Indian and Mixed datasets.
- Implemented procedures for generating spontaneous emotions and created an Indigenous Video emotion database

➢ **Robotic Process Automation (RPA) Internship** - **AB InBev** - May 2020 - June 2020

- Created modules for **Bot Automation** - Collection of Employee Hiring data using **Automation Anywhere**.
- Created **Service Level Templates** using **Power Query** for **North American and South American Zones** for Data analysis.
- Worked with **International Service Level Team** and made **live Data Visualizations using PowerBI** to track Exports.
- Generated and **verified 50 reports** by creating modules to **automate the Data retrieval from SAP Database**.

➢ **Data Contest - Pattern Recognition and ML** - **Classification** - May 2020 - Aug 2020

- Developed a model to **predict Stay/Exit of an Employee** from a company based on ratings and remarks given.
- Collected useful features after **pre-processing data** and appropriately assigned **temporal weights**.
- Used **k-fold Cross Validation** in order to reduce Over-fitting and submitted a final **XGBoost model**.
- Scored **84.88%** on the Leaderboard against a **baseline score of 72.4%**.

➢ **Data Analytics Internship** - **Cadla** - May 2019 - July 2019

- Worked on sales data gathered from around **1000** Developmental stores, Convenience stores and Supermarkets.
- **Cleaned raw data** using **R language** and then tried to find correlations between sales and important events.
- Found patterns validating some of the well-known buying habits of the public.
- Made **Product and Brand based** sales comparisons and visualized the findings.

RELEVANT COURSEWORK

Core	Non-Core
– Chemical Reaction Engineering – Applications of Mass Transfer – Fundamentals of Heat and Mass Transfer – Interfacial Science and Engineering – Chemical Engineering Thermodynamics – Continuum Mechanics & Transport Phenomena – Fluid and Particle Mechanics – Computational Techniques – Multivariate Data Analysis – Process Optimization – Process Dynamics and Control – Integer Optimization – Principles of Economics – Modern Control Theory – Process Engineering – Process and Product Design	– Series and Matrices – Probability, Statistics and Stochastic Processes – Mathematical Foundations of Data Science – Differential Equations – Functions of several variables – German 1 – Introduction to Programming – Pattern Recognition and Machine Learning (Including Probability and Linear Algebra) – Advanced Optimization Research **Lab** – Chemical Engineering Thermodynamics Lab – Process Control Lab – Heat and Mass Transfer Lab – Momentum Transfer & Mechanical Operations Lab – Computational Programming & Process Simulation Lab

POSITIONS OF RESPONSIBILITY

➢ **QMS Manager, Events, Shaastra, IIT Madras - 2019-2020**

- Qualified as an **Internal Auditor** after clearing the course conducted by TUV India Training Academy.
- Acted as the link for different events in Shaastra and was involved in the **ISO 9001 audit for Shaastra 2020**.
- Conducted Internal Audits for all events and oversaw finances and Budget.

➢ **Coordinator for Quiz Club, IIT Madras - 2018-2019**

- Conducted the **Saarang School Quiz 2019** where around 50 schools took part.
- Conducted and took part in numerous quizzes as part of Quiz Club events.
- Participated as a member of **IIT Madras Contingent** in Nihilanth 2020 – Inter IIT and IIM Quiz fest.

➢ **Coordinator for Analytics Club, IIT Madras - 2018-2019**

- Conducted Introductory sessions for Freshmen regarding **Analytics and Machine Learning tools**.
- Supervised **Summer School** conducted by **Analytics Vidhya** for around **250 participants** in the area of Machine Learning.

EXTRA-CURRICULAR ACTIVITIES

➢ **Sudokus and Puzzles**

- Placed **4th in Asia** and Won **Team Gold Medal** at the **Asian Sudoku Championships 2020** in Hyderabad.
- Represented India in the **World Sudoku and Puzzle Championship 2019** in Kirchheim, Germany.
- Represented India in **World Sudoku Championships 2016, 2017, 2018** in Senec, Bangalore and Prague.
- Placed **3rd** at the **Indian Sudoku Championship 2018**.
- Won the **Times Sudoku Championship**, India in 2017.
- Won the **Indian Sudoku League, 2017**.
- Represented India and **won Silver Medal in World Junior Sudoku Championship 2015** in Beijing, China as part of the Indian Team.
- Participated in **Guinness World Record** for creating the largest multi-sudoku puzzle conducted in Beijing, 2015.

➢ **Miscellaneous**

- Placed **2nd** at the Word Games event at Inter IIT Culturals 2019.
- Conducted **What's the Good Word event** in Saarang 2020
- Won the **Texas Instruments Science and Technology Quiz** 2015
- Got selected as part of National Culture Academy (NCA) for **Chess** training for 2017