Utkarsh Sahu *(He/Him)*

+91 9264925125 | LinkedIn | sahuutkarsh03@gmail.com | Github | Twitter

EDUCATION

Indian Institute of Technology – Madras   **8.5 CGPA**
B.Sc. in Data Science and Programming   *Jan 2021-2024*
- **Relevant Coursework:** Database Management System, Machine Learning Foundation, Programming Concepts using JAVA(OOPS), Modern Application Development I & II, System Commands & Tools in Data Science.

Delhi Technological University (formerly known as the Delhi College of Engineering)   **9.2 CGPA**
B.Tech with Majors in Mechanical Engineering   *Dec 2020-2024*

Lucknow Public School   **96.75%**
Higher Secondary School Certificate (ISC Board)   *April 2018-2020*
- Among the **Top 1 percentile** students in India, I secured **100%** in **Mathematics** and **98%** in **Computer Science.**
- Served as the **House Captain** for the **Senior** wing and got a **Certificate of Merit for excellent leadership** qualities.

WORK EXPERIENCE

Central Adoption Resource Authority, Ministry of Women and Child Development   **New Delhi**
Full Stack Developer   *Dec 2021-Present*
- Developed **more than 100+ web pages using React.js, initially in ASPX** for the Government Portals of **CARINGS** (Child Adoption Resource Information & Guidance System) and **CARA** (Central Adoption Resource Authority) and **pushed production quality code** primarily in JS.
- Assisted the backend team in integrating the frontend with the backend and writing queries for data retrieval.
- Worked alongside with **Design, Backend and Admin(CARA) team** and streamlined the process of development and technical documentation. Created how-to videos for new intern joiners.

Team Defianz Racing – Delhi Technological University   **New Delhi**
Jnr. Software Architect - Software Department   *July 2021-Jan 2022*
- Worked in a **team of 8 people** aimed at building **India's first Autonomous F1 car**.
- Built **Pure-Pursuit Lateral controller** from scratch and integrated it along with PID controller. Implemented the **RRT* algorithm** for Path Planning and integrated it with the **ROS framework**.

PROJECTS

Solubility Predictor   **Live Link**
Python, Streamlit, Heroku, RDKit and Machine Learning   Github Repository
- Made a Machine Learning Model that predicts the solubility of a molecule directly from its Structure, as discussed in the research paper: **ESOL: Estimating Aqueous Solubility Directly from Molecular Structure**.
- The model was derived from **1145 sets of measured solubilities** of molecules using **Linear regression against four properties**.
- Used the **Streamlit** framework to make the web app and deployed it using **Heroku**.

Flashcard App   **Demo Link**
Flask, Vue, Bootstrap, SQLite, SQLAlchemy, Redis, Celery and JWT   Github Repository
- Made a **Flask application** for **memory/language training** to create multiple decks. It presents a card from the deck to the user. The user, after that, can view the answer and rate the difficulty.
- Added the following features: **Secure User Login(using JWT), deck management, export as CSV** and **scheduled daily and monthly jobs reminders.**
- Made a **REST API** for **CRUD operation** on decks and individual cards and retrieval of scores.
- Used **Redis** for caching and improving performance.
- Performed **backend validation** before storing(or selecting) in(or from) database.

SKILLS

- **Programming Languages:** C++, Python, and Java.
- **Web Development:** HTML5, CSS3 and JavaScript, React.js, Node.js and Flask.
- **Database:** SQLite, PostgreSQL and MongoDB.
- **Interpersonal and soft skills:** Teamwork, Communication Skills, Leadership qualities, and Emotional Intelligence.
- **Others:** Git, GitHub, Linux, Awk, Sed, Excel, Web Scrapping, Data Structures and Algorithms and Problem Solving.

ACHIEVEMENTS & HONORS

- **Siemens Scholarship Program:** I was among 200 hundred students selected across India for the **Scholarship,** which covered Tuition fees, Exam fees, and credit-linked allowance per year for the BTech Degree.
- **Essay Writing Competition (Cash prize Rs. 1500) – Sangam, IIT-Madras**   *Credentials*