# SHIVAM KUMAR JHA

### Education

# Indraprastha Institute of Information Technology, Delhi

2020-2024

B. Tech in Computer Science and Applied Mathematics

CGPA:8.25

#### Technical Skills

Languages and Technical skills: C++, C, java, Python, SQL,Linux, HTML, AWS EC2, AWS Lambda, AWS ECR, AWS SQS, AWS SES, Docker fundamentals, github CI/CD, Springboot, Apache Kafka ,TCP/IP

Courses: Advanced Programming(OOPs), Data Structures and Algorithms, Analysis and Design of Algorithm, Modern Algorithm Design, Operating System, Database Management Systems, Machine Learning

# Experience

Mantle Labs May 2024 – Present

Junior Backend Developer

- \* Mastering integration of bioinformatics tools like BLAST, 2D chem search, Admetica etc. into software solutions, utilizing AWS resources such as EC2, Lambda, S3, ECR, SQS, and Docker for efficient implementation.
- \* Actively involved in bug fixing, developing **API functions**, and building tools on **Runpod using GPU**, while also supporting team members in transitioning tools to the frontend.
- \* Tech Stack: Python, Docker, Ubuntu Linux, AWS Lambda, AWS EC2, AWS SQS, AWS S3

Goldman Sachs May 2023 – July 2023

 $Summer\ Analyst\ Intern$ 

- \* Developed back-end software for a timeline tracking system using Java, Spring Boot and an open SDK Temporal to streamline the monitoring of tasks within the ETF launch process. Time line tracker had fault tolerance and state management capabilities to restore the state in case of network or Infrastructure issues with retry logic.
- \* Developed **CRUD APIs** for task and workflow repositories. Gained insights into technical and non-technical aspects of the software industry, with a focus on **team collaboration and effective communication**.
- \* Tech Stack: Spring Boot, Java, CI/CD, Gradle, Mongo DB, Temporal workflow Orchestrator

#### **Projects**

Backend of Blogging Application | Java, Spring Boot, MYSQL databse GitHub

- \* Developed a robust backend for a blogging application using **Spring Boot and MySQL**, implementing industry-standard security features such as **authentication and authorization** to protect user data.
- \* Created and optimized CRUD APIs for various functionalities, demonstrating proficiency in backend development by adhering to best practices and ensuring clean, maintainable, and efficient code.

Foetal Health Prediction -ML Model | Python, Scikit-Learn, Pandas, NumPy, Seaborn, GitHub

- \* Developed a machine learning model to predict fetal health status using Cardiotocogram (CTG) data, which includes fetal heart rate and uterine contraction signals. This model aids obstetricians by providing accurate classifications of fetal conditions, ultimately helping to reduce child mortality rates.
- \* Conducted extensive data preprocessing, feature engineering, and applied various machine learning algorithms. The Artificial Neural Network outperformed other models with the highest f1-score of 81.20%, indicating its strong potential for improving prenatal healthcare decision-making.

Railway Ticket Reservation System | HTML, CSS, PHP, MySQL GitHub

\* Built an efficient Online Railway Ticket Reservation System using MySQL, HTML, CSS, JavaScript, and PHP. The system enables users to easily book, cancel, and reschedule tickets, simplifying the ticketing process.

### Awards and Achievements

Expert at Codeforces with rating more than 1600 Codeforces-link

Member of college programming club and served as Teaching assistant of competitive programming course Secured 2nd Position in ACM IIIT Delhi coding competition

Secured less than 100 AIR in Google Kick start 2021

Attained a LeetCode rating of 1700+, demonstrating strong problem-solving skills and proficiency in algorithms. 26th rank in SOF-IMO 2019 and Gold medalist in school for 2 years

#### Volunteering

Mentored students in **competitive programming**, enhancing their coding skills and **problem-solving**.

Organized and managed events and logistics for IIIT Delhi's cultural fest, Odyssey.

Captained the college cricket team at various sports fest, showcasing teamwork and decision-making skills