

SAUMYADIPTA SAHA

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Technical Skills

- Programming and Core Skills: Python, C, C++, C#, Java, JavaScript, Data Structures & Algorithms (DSA)
- Frameworks: Flask, Django
- Web Technologies: HTML, CSS, JavaScript, PHP
- Databases: SQL, MongoDB
- Tools: Postman, Swagger, Git, Jupyter, Linux
- Libraries & Data Analysis Tools: Matplotlib, NumPy, Seaborn, Pandas
- Machine Learning & Deep Learning: Keras, OpenCV, Scikit-Learn

Experience

Koders (IT service company)

June 2024 – July 2024

Backend Development Intern

Dehradun, Uttarakhand

- **Engineered** critical backend features for an e-commerce platform using **Flask** to enhance **user experience**, achieving a **20% reduction in server response time** through optimized query handling.
- Integrated Razorpay payment gateway, facilitating secure and seamless transactions for over 5,000 users per month, reducing transaction failures by 15%.
- **Spearheaded** database migration from **MySQL to MongoDB** to enhance **platform scalability**; achieved a **30% faster data retrieval time** and a **2x increase in data capacity** by restructuring database schemas.
- Implemented JWT-based secure session management, reduced unauthorized access incidents by 25% and ensured compliance with security best practices
- Integrated Google OAuth 2.0 for streamlined and secure user authentication, increased login success rates by 10% and enhanced the overall user experience.
- Optimized SQL and MongoDB queries, improved query response times by 40%, which resulted in faster page load times and a more efficient backend system.
- **Optimized** API reliability by **developing robust error-handling and documentation**, reducing **system downtime by 15%** and easing maintenance efforts for future developers.
- Conducted in-depth API testing and debugging using Postman, resolving critical issues that improved API reliability, increasing uptime to 99.8%

Projects

Chat Fusion: Sentiment Analysis and Behavioral Insights from WhatsApp Conversations

July 2024 – August 2024

- **Technologies:** Python, pandas, TextBlob, VADER, Streamlit
- **Summary:** Developed an automated chat analysis system to extract sentiment, user activity, and generate data visualizations. Efficiently processed large datasets for behavior insights.
- **Impact:** Provided valuable sentiment and communication pattern insights for personal or professional use.

Movie Recommender System (Content-Based)

April 2024-May2024

- **Technologies:** Python, Pandas, Scikit-learn
- **Summary:** Built a personalized movie recommendation system by analyzing user preferences and generating recommendations using similarity algorithms.
- **Impact:** Enhanced user engagement with tailored movie suggestions, handling large datasets.

Face-Mark Automated Attendance system

October 2023 – November 2023

- **Technologies:** Python, OpenCV, TensorFlow/Keras.
- **Summary:** Developed an automated attendance system using computer vision and machine learning, solving real- world accuracy challenges in attendance tracking by automating the process and reducing manual errors.
- **Impact:** Streamlined attendance processes, saving time and ensuring accurate record-keeping.

Education

Uttaranchal University

Aug 2023 – Aug 2025

Dehradun, Uttarakhand

- Master of Computer Application (MCA)in Artificial Intelligence & Machine Learning(AIML)

Gauhati University

Aug2018 – Jan 2022

- Bachelor of science in computer science (B.Sc(CS))

Kokrajhar , Assam

Pratima Barua Pandey College

Aug 2016 – Aug 2018

- Higher Secondary
AHSEC Board (Assam Higher Secondary Education Council)

Gauripur, Assam

Synod English Mission School

May 2016

- Secondary School Certificate

Gauripur, Assam

SEBA BOARD (Board of Secondary Education Assam)