# SUBHRANEEL PAUL

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#### **EDUCATION**

**IIEST, Shibpur**, B. Tech in Mechanical Engineering

Grad. 2024

CGPA: 8.25

Delhi Public School Newtown, High School; ISC/ICSE Board

2006 - 2019

Class 12 (ISC 2019): 91% Class 10 (ICSE 2017): 95.7%

**SKILLS** 

Languages Python, SQL, DAX

Frameworks Scikit-Learn, PyTorch, Tensorflow, Keras, Langchain, Flask, FastAPI, BeautifulSoup, MongoDB,

OpenAI, LangGraph, PostgreSQL

Tools Power BI, Docker, GIT

Soft Skills Leadership, time management, adaptability, teamwork, persuasion

#### WORK EXPERIENCE

# Junior Machine Learning Engineer

June 2024 - present

Rava.AI (Full time, Remote)

- Developed Retrieval-Augmented Generation (RAG) pipelines using PDFs and real-time web scraping techniques.
- Decreased latency of RAG responses by 75%..
- Implemented image models like Imagen and Flux to enhance visual data processing capabilities.
- Leveraged knowledge graphs to perform advanced lexical search, taking relevance scores to 91%.

# **Machine Learning Engineer Intern**

February 2024 - May 2024

Rava.AI (Internship, Remote)

- Designed a dynamic prompt generating model which was included in the first release of the product.
- Used Langchain with OpenAI and Pinecone vector database to execute tasks personalised to LinkedIn profiles.

## **Data Analyst Intern**

May 2023 - July 2023

### PricewaterhouseCoopers India (Internship, Kolkata)

• Leveraged Python to implement a predictive model with exponential smoothing for time series analysis, seamlessly integrating it with a Power BI dashboard.

### FREELANCE & PERSONAL PROJECTS

- LangGraph Web Search Agent: Built an AI-powered research workflow using LangChain, LangGraph, and Streamlit, integrating OpenAI/Groq LLMs, Serper API for search, web scraping, and SQLite-based state management, enabling automated multi-agent information retrieval, analysis, and structured reporting. (View here)
- Timesheet Parsing and Structuring Pipeline: Built a timesheet parsing pipeline with Tesseract OCR and LLMs to extract and categorize fields like dates, hours worked, and tasks. FastAPI manages structured outputs for efficient querying and analysis, ensuring data accuracy.

### AWARDS AND EXTRA-CURRICULAR ACTIVITIES

- Blue Blazer Award for academic excellence (associated with DPS Newtown).
- My article on "OCR with Tensorflow" secured 37th position in the Geeks Premier League 2023 hosted by GeeksforGeeks. (View here)
- Piano instructor (Remote) at Whitehat Jr. Education Technology Pvt. Ltd.

Aug 2021-Apr 2023

• Sponsorship Management Team member in Impetus 2022 (Mechanical Engineering fest) held at IIEST, Shibpur.