

Aviroop Mitra

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PROFESSIONAL EXPERIENCE

Neurologic-ai | Machine Learning Intern

Nov, 2023 – Jul, 2025

Intelligent Claim Orchestration in Guidewire | Skan AI

May – Jun, 2025

Automated claim creation and assignment in **Guidewire ClaimCenter** with a vision-to-reasoning pipeline that pairs **GPT-4 Vision/Text** (async **Python**, prompt-engineered with token-cost guardrails) and a hierarchical scorer operating on a 30-event window. Delivered **80%** confidence (+**23 pts** over benchmark) and **halved inference latency**.

Document Intelligence Platform | Carelon Health

Mar – May, 2025

Streamlit-based interface drives a PDF-to-image flow where a **layout-transformer** isolates semantic zones; cropped sections are passed to async **GPT-4 Vision** (backed by **Mistral OCR** and **Python** imaging) and rendered with **Pandas**. The generalized architecture now ingests diverse healthcare documents and keeps end-to-end latency under **3s** without sacrificing accuracy.

PwC India | Advisory Intern

Jun – Jul, 2024

Full-Stack Ticket Platform

Jun – Jul, 2024

Angular + **Spring Boot** + **MongoDB** stack with **JWT**-secured role-based access. Provides a real-time ticket dashboard, template creation/search, appraisal & query threads, and an animated UI—while keeping CRUD latency under **50 ms**. An **API Gateway** and client-side service discovery route traffic to horizontally duplicated ticket and auth services for effortless scale-out.

EDUCATION

Jadavpur University | Bachelor of Engineering - BE (Hons.) in Computer Science and Engineering |

Dec, 2021 – Jul, 2025

GPA: 8.25

Burdwan Municipal High School | Higher Secondary in Science | GPA: O

Jul, 2019 – Mar, 2021

Burdwan Town School | Secondary | GPA: AA

Jan, 2011 – Mar, 2019

PROJECTS

Distributed P2P Network

Feb – May, 2025

Built a simulation of P2P network using FastAPI, Streamlit and Distributed Computing knowledge where peers can upload and view files (similar to Bit torrent)

LinkedIn Puzzle Solver

Aug – Aug, 2024

- Developed a Streamlit-based web application to solve the Queens game, a logic puzzle from LinkedIn News.
- Created a user-friendly interface with custom styling using HTML and CSS for enhanced visual appeal.
- Integrated image processing using the Python PIL library to guide users on valid and invalid image uploads.

Compiler Design Project

Feb – Apr, 2024

- Implemented a bottom up parser in C language for a simple C like language with for loops, variable declarations and functions
- Designed an LR(1) automaton to generate parsing tables and handle grammar rules for a C-like language.
- Integrated a lexical analyzer and symbol table to tokenize input, manage scope, and validate identifiers and types during parsing.

SKILLS

Programming Languages: Python, C++, JavaScript, Java, C

Machine Learning & AI: Prompt Engineering, Large Language Models (LLM), Natural Language Processing (NLP), Convolutional Neural Networks (CNN), Transformers, Deep Learning

APIs & Integration: OpenAI API, API Gateways, REST APIs, FastAPI

Frameworks & Web Development: Streamlit, Spring Boot, Angular, Node.js

Databases & Data Storage: MySQL, SQLAlchemy, MongoDB, SQL

Developer Tools & Libraries: pytest, Git, Pandas (Software), Scikit-Learn, NumPy, Jupyter

AWARDS & ACHIEVEMENTS

GATE CS, 2025 | AIR 65, 99.96 percentile

Feb, 2025

Senior Scholar | Jagadish Bose National Science Talent Search | 98.98 percentile

Jul, 2022

Junior Scholar | Jagadish Bose National Science Talent Search | 98.5 percentile

Mar, 2020