

# Aviroop Mitra

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## PROFESSIONAL EXPERIENCE

### Machine Learning Intern at Neurologic-ai

*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 3 s without sacrificing accuracy.

### Advisory Intern at PwC India

*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

### Bachelor of Engineering - BE in Computer Science and Engineering • Jadavpur University

*Dec, 2021 - Jul, 2025*

GPA: 8.15 ( upto 7th semester )

### Higher Secondary in Science • Burdwan Municipal High School

*Jul, 2019 - Mar, 2021*

GPA: O

### Secondary • Burdwan Town School

*Jan, 2011 - Mar, 2019*

GPA: AA

## 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)

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## **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.

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## **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.

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# **SKILLS**

## **Programming Languages:**

C++, Java, JavaScript, SQL

## **Machine Learning & AI:**

OpenAI API, Machine Learning, Recommender Systems, Transformers, Deep Learning

## **Data Science & Analytics:**

NumPy, Scikit-Learn, Jupyter

## **Web & API Development:**

REST APIs, FastAPI, Spring Boot, Angular, Node.js, Streamlit

## **Databases & ORM:**

MySQL, MongoDB, SQLAlchemy

## **DevOps & Cloud:**

Cloud Computing, Git

### **Testing & QA:**

pytest

## **AWARDS & ACHIEVEMENTS**

### **GATE CS, 2025**

*Feb, 2025*

AIR 65, 99.96 percentile

### **Jagadish Bose National Science Talent Search, Senior Scholar**

*Jul, 2022*

98.98 percentile

### **Jagadish Bose National Science Talent Search, Junior Scholar**

*Mar, 2020*

98.5 percentile

## **CERTIFICATIONS**

### **Programming in java • NPTEL**

*Nov, 2023*

### **PERCEPTRON - The Turing Show, Coding Competition • RKMVERI, Belur**

*Jan, 2023*