

Aviroop Mitra

aviroopmitra5@gmail.com | +91 79809 58951 | India | [LinkedIn](#)

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 | GPA: 8.25 (76.3%)

Dec, 2021 – Jul, 2025

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

CVPipeline | [GitHub](#)

Jul, 2024 – Jul, 2025

- Implemented a **6-step** modular pipeline using **LinkedIn API**, **OpenAI API**, **Google Knowledge Graph API**, **PyGithub**, **Playwright**, **httpx**, **python-dotenv** and **requests** to fetch, transform, AI-enhance, validate URLs and generate HTML/PDF resumes.
- Developed async URL validator achieving complete link verification via multi-layer discovery across **Google Knowledge Graph API**, **LinkedIn** and **profile fallback modules**.
- Generated responsive **HTML** resumes and print-ready PDFs with **Playwright**, outputting assets/index.**HTML**, assets/styles.css and Aviroop Mitra Resume.pdf.
- Configured centralized styling and **AI prompts** in scripts/config.py to control fonts, color schemes, layout preferences and model settings.

VARC_APP | [GitHub](#)

Apr, 2025

- Developed a **Python Streamlit** app using **web scrapers** for The Hindu and The Telegraph with a weighted **20%** Business & economics, **50%** Science & technology, **20%** Art & literary criticism, and **10%** Philosophy & sociology distribution to select one daily article.
- Structured the codebase with **app/components** for UI, **app/scrapers** for crawlers, **app/utills** for utilities, **main.py** as the entrypoint, and a data folder to cache articles.
- Enabled **24-hour** persistence of the selected article by caching it in the data directory and presenting it via a clean, intuitive **Streamlit UI**.

distributed-p2p-network | [GitHub](#)

Mar, 2025

- Implemented distributed text processing in **Python 3.8+** using **5 Main Nodes** (ports 8000–8999) for coordination, load balancing, and health monitoring.
- Developed chunk-based storage layer with **10 Data Nodes** (ports 9000–9999) managing replication and persistence across nodes.
- Engineered **compute cluster** with **10 Compute Nodes** (ports 10000–10999) performing **text chunking**, **embedding generation**, and **semantic search**.
- Configured development workflow with **virtualenv** and **pip**-managed dependencies, plus automated unit, integration, and **frontend tests** generating **coverage reports**.

SKILLS

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

Machine Learning & AI: Machine Learning, Deep Learning, Natural Language Processing (NLP), Convolutional Neural Networks (CNN), Transformers, Recommender Systems

APIs & Libraries: OpenAI API, REST APIs, FastAPI, SQLAlchemy, Scikit-Learn, NumPy

Databases & Data Storage: MySQL, MongoDB

Frameworks & Platforms: Spring Boot, Angular, Node.js

DevOps & Cloud: Cloud Computing

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