

Aviroop Mitra

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

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 (93.4%)

Jul, 2019 – Mar, 2021

Burdwan Town School | Secondary | GPA: AA (95.14%)

Jan, 2011 – Mar, 2019

PROJECTS

CVPipeline | [GitHub](#)

Jul, 2024 – Jul, 2025

- Implemented a **6-step** pipeline using **LinkedIn API**, **OpenAI API**, and **PyGithub** to fetch, transform, AI-enhance, validate, and output HTML/PDF resumes.
- Enabled async processing with **httpx** and **python-dotenv** to validate **100%** of URLs across **6 modules**, accelerating execution.
- Developed URL Validator leveraging **Google Knowledge Graph API** and fallback to **LinkedIn** and profile URLs to remove broken links during multi-layer discovery.
- Generated responsive HTML via **html_generator** and print-ready PDF via **Playwright**, centralizing fonts, colors, and layout in **config.py**.

VARC_APP | [GitHub](#)

Apr, 2025

- Implemented a **Streamlit** app in **Python** to select one article daily from The Hindu and The Telegraph with topic probabilities of Business & Economics (**20%**), Science & Tech (**50%**), Art & Literary Criticism (**20%**), and Philosophy & Sociology (**10%**).
- Developed modular **web scraping** scrapers and utility functions organized into app/components, scrapers, utils and main.py for **source extraction** and **UI assembly**.
- Configured **data caching** under data/ to store and serve the same article across a **24-hour cycle** for consistent daily delivery.
- Deployed a clean, intuitive **Streamlit** UI leveraging **component-based layout** to streamline user interaction with probability-driven article selection.

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

Mar, 2025

- Developed distributed text processing system in **Python 3.8+** spanning **5 Main Nodes** (ports 8000–8999) handling coordination, load balancing, and health monitoring.
- Implemented **10 Data Nodes** in **Python 3.8+** using **chunk-based storage** and **replication** with **pip-managed dependencies** across ports **9000–9999**.
- Engineered **10 Compute Nodes** (ports **10000–10999**) and integrated **RESTful API** plus **web frontend** in **Python 3.8+** for embedding generation, similarity search, and real-time node management across **25 nodes**.

SKILLS

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

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

APIs & Libraries: OpenAI API, NumPy, Pandas (Software), Scikit-Learn, SQLAlchemy, REST APIs

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

Databases & Data Storage: MySQL, MongoDB

Testing & QA: pytest

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