

# Aritro Saha

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## Education

### Vellore Institute of Technology

Bachelor of Technology in Electronics and Computer Engineering

Sep 2021 – Jul 2025

Chennai, India

- CGPA: 8.53/10

## Experience

### Associate Software Engineer

Bristol Myers Squibb

Jul 2025 – Present

Hyderabad, India

- Led development of medical chatbot for NSCLC diagnosis, driving core architecture using OpenAI and LLMs while integrating GenAI features for clinical decision support
- Architected an enterprise-wide data ingestion engine replacing manual batch loads with real-time CDC streams into Databricks, improving downstream analytics freshness by **60%**
- Built AWS Lambda functions for metadata enrichment with Glue crawlers, storing in DynamoDB with **99.9%** accuracy
- Developed daily mailer system delivering KPIs and AI-generated insights for portal metrics, boosting team performance by **50%**
- Technologies:** Python, Databricks, OpenAI, AWS (Lambda, S3, DynamoDB, Glue, Bedrock, SageMaker), OpenSearch, Redshift

### Data Science Engineer Intern

Bajaj Finserv Health

Feb 2025 – Jun 2025

Pune, India

- Revamped OPD claims algorithm using vision-based NER, reducing failure rates by **60%** (5000+ claims/day)
- Engineered regex NER pipeline for ICD-10 mapping, eliminating GPT dependency with **98%** throughput acceleration
- Optimized FastAPI endpoints improving P99 latency by **35%** (800ms → 520ms)
- Technologies:** Python, FastAPI, Elasticsearch, MongoDB, Google Gemini, OpenAI, Azure DevOps

### Software Engineering Intern

WIPRO

Oct 2023 – Dec 2023

Kolkata, India

- Created 3D car visualizer with Three.js achieving **300%** improvement in load times
- Constructed Flask/Node.js RESTful APIs connecting ML models to React/Vue frontends, reducing response times by **40%**
- Automated Docker-based CI/CD pipeline increasing deployment efficiency by **50%**
- Technologies:** React.js, Vue.js, Node.js, Three.js, Flask, Docker, Azure, Python

## Projects

### PAW-sitive: Pet Services Platform | Next.js, TypeScript, MongoDB, Node.js, Gemini

GitHub | Live

- Architected full-stack platform with Gemini AI chatbot and voice assistant serving **200+** weekly inquiries
- Integrated NLP-powered query handling increasing user retention by **15%**; reduced onboarding time by **30%**

### Gesture Recognition & Voice Control | Python, MediaPipe, PyAutoGUI, Gemini

GitHub | Paper

- Engineered real-time hand gesture recognition with **16ms** inference time and **95%** accuracy by combining MediaPipe and Harcasade classifiers
- Implemented voice commands with SpeechRecognition + Gemini, reducing manual input by **70%**

## Technical Skills

**Languages:** Python, JavaScript, TypeScript, Java, C, SQL

**Frontend:** React.js, Next.js, Vue.js, Three.js, Tailwind CSS, HTML/CSS

**Backend:** Node.js, Express.js, FastAPI, Flask, REST APIs, WebSockets

**Cloud & DevOps:** AWS (Lambda, S3, DynamoDB, Glue, SageMaker, Bedrock), Docker, Kubernetes, Azure

**AI/ML:** OpenAI, Google Gemini, Databricks, Langchain, Scikit-Learn, NLP, NER, Computer Vision, Pandas, NumPy

**Databases:** MongoDB, DynamoDB, Elasticsearch, Firebase, PostgreSQL

**Tools:** Git, Linux, Postman, JIRA, Azure DevOps

## Achievements & Certifications

**Hack4Bengal Season 3 Winner** – Largest hackathon in Eastern India

**LeetCode Knight Badge** – Rating: 1868

**Published Research** – Hand Gesture Recognition paper in IJIRT Journal