

ARNAB SENGUPTA

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SUMMARY

Results-oriented artificial intelligence and machine learning enthusiast with leadership experience in managing projects and leading cross-functional teams. Proven track record of successfully delivering high value projects. Skilled in coordinating resources, setting goals, and ensuring team members are motivated and aligned with project objectives

EDUCATION

Bachelor of Technology in Computer Science Engineering

Heritage Institute of Technology

2027

Kolkata, WB

EXPERIENCE

AI Engineer

October 2024 – Present

Alchemyst AI • Bangalore, India

Remote

- Developed and fine-tuned an AI-native UX pipeline enabling users to control platform interfaces through natural language commands, enhancing user interaction efficiency
- Developed an Ideal Customer Profile (ICP) research pipeline, enabling AI system to conduct dynamic, interactive dialogues with users to extract critical information, convert natural language responses into structured JSON, and automate lead identification processes
- Built a lead enrichment pipeline by developing a multi-agent AI system integrated with web search, web scraping, and AI-driven relevancy analysis tools to dynamically enrich and refine lead data, delivering actionable insights tailored to user queries
- Built a dynamic workflow campaign generator that automates hyper-personalized email sequencing, optimizing outreach strategies and accelerating lead conversion through AI-driven targeting and engagement
- Engineered integrations of the platform with external systems, including Zoho, Telegram, Salesforce, HubSpot and WhatsApp, enhancing cross-platform operability and expanding user functionality

AI/ML Domain Mentor

October 2024 – Present

Google Developer Group on Campus, HIT • Kolkata, India

On Site

- Conducted a hands-on session on "Introduction to Machine Learning," attended by 100+ participants, covering foundational ML concepts such as supervised and unsupervised learning, linear regression, classification, and overfitting
- Organized a 30-hour ML contest, bringing together 20 teams and overseeing a remarkable 166 submissions, fostering collaboration and problem-solving among participants
- Played a key role in creating an engaging environment for attendees to gain practical exposure to machine learning while promoting a culture of continuous learning and innovation

PROJECTS

AITNode

Agentic Ethereum 2025 • <https://github.com/asengupta07/aitnode/>

January 2025 – February 2025

- Developed a decentralized AI agent marketplace with a no-code AI agent builder, allowing users to create, own, and monetize decentralised AI agents as NFTs.
- Engineered the AI agent testing and execution pipeline, allowing AI agents to run autonomously via on-chain triggers using Autonome.
- Built an AI agent creator platform with no-code AI agent creation system with natural language-based agent generation and Monaco-powered IDE for custom AI logic development.
- Designed and developed a token launchpad with Solidity smart contracts, enabling AI agents to issue ERC-20 tokens for monetization.

BhuvanRKSHA

SIF-Space Hackathon, IISF 2023, ISRO • <https://github.com/asengupta07/Mohakash/>

December 2023 – January 2024

- Led development of BhuvanRKSHA, a bi-layered AI powered security application for monitoring logs and detecting suspicious behaviour.
- Conducted exploratory data analysis and feature engineering to optimize threat detection capabilities.
- Trained anomaly detection and multi-class classification models achieving 95.8% and 99% accuracy, respectively, in distinguishing and prioritizing threats.
- Implemented ETL Pipeline for dynamic data processing and scalable model deployment for real-time threat detection.

PUBLICATIONS

A. Sengupta et al., "An Approach to Detect and Classify Potentially Suspicious Activity from Real-Time Log Data using Anomaly Detection Methods," 2024 3rd International Conference for Innovation in Technology (INOCON), Bangalore, India, 2024, pp. 1-9, DOI: [10.1109/INOCON60754.2024.10511679](https://doi.org/10.1109/INOCON60754.2024.10511679)

SKILLS

Programming Languages: Python, C, Java, JavaScript

Machine Learning: Supervised and Unsupervised Learning, Deep Learning, Computer Vision, Hyperparameter Tuning, Feature Engineering and Data Science, Deployment and Productionization

Libraries: Pandas, Numpy, Matplotlib, Seaborn, Scikit-Learn, TensorFlow, OpenCV, LangChain, Huggingface, Pydantic

Backend: Django, Flask, SQL

Leadership Skills: Team Management, Strategic Planning, Effective Communication, Problem-Solving, Accountability and Responsibility

Languages: Fluent Proficiency in reading and writing English, Bengali and Hindi

ACHIEVEMENTS

- Winner of Bulliverse AI Agent Track 1st Prize at Unfold 2024 by CoinDCX.
- 1st Prize Winner at HackHeritage 2024 out of 150+ teams.
- EduChain Semester 1 Hackathon Winner out of 5100+ participants and 834 submissions.
- Early modeler bounty for Web3 Credit Scoring Challenge by Spectral Labs.
- 3rd Prize Winner at East India Blockchain Summit 2025 by IIT KGP Blockchain Society.
- Top 50 finalist out of 300+ teams for the SIF Space Hackathon organized by ISRO.
- Top 10 out of 1000+ individual participants in Data Science Student Championship 2024.
- 3rd Runner up at HackHeritage 2023 out of 90 teams and 30 finalists.
- Runner up at MLX Hackathon by GDSC HITK out of 300+ participants.
- Top 5 finalist in Prediction Bash, an ML hackathon by IIT Bhubaneswar.
- Top 15 finalist in Hack It Out, Celesta 2023, IIT Patna.