



Arkadip Basu

Machine Learning Engineer

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<https://arkadipbasu.github.io>

Education

- Master of Technology in AI IISc Bangalore, CGPA 8.5
- B. Tech in Electronics WBUT, Kolkata, CGPA 8.0

Skill

Machine Learning
Data Pipeline building
Distributed architecture
Cloud Networking
Recommendation Engine
Docker, Git, Elastic Search
Unix Shell Scripting, Database
Automation, API, Chatbot
Information Security
Resource Optimization
Leadership & Management

Affiliation

- Mentor for IIT-Madras Data Science (BS) students
- IEEE Senior Member
- Reviewer IEEE-YP academics
- Solution prototype for National Defence (iDEX)

Certifications

- Azure Fundamentals
- Generative AI Prompting by deeplearning.ai
- Cybersecurity by Google
- Linux by Redhat
- Design Thinking by IDEO

Co-Curricular

- Active contributor for Open Source projects
- Conference Speaker
- Kaggle Global rank holder
- Meetup Organizer
- Trekking & Numismatics

Professional Synopsis

Solution oriented Machine Learning Engineer with 10+ years' experience and strong foundation in Data Science, Statistics, Software Engineering & DevOps. Proven expertise on building & deploying predictive, forecasting models across Retail, Finance, Pharmaceutical domains. Proficient in Python, SQL and range of ML algorithms. Adept at collaborating with cross-functional teams to improve business growth and synergy through data-driven approach.

Work Experience

Walmart Global Tech, Bengaluru

May 2018 - Present

- Developed Drone Aided path planning algorithm for Supply chain inventory management in store distribution centre. This involves object detection, obstacle avoidance, quick inspection improving the RoI by 14%. The model was validated over Unity simulated environment with multiple iterations.
- Implemented in-house Monitoring solution for Infrastructure gears. This is primary tool for Network Router, Load Balancer, DDI, Firewall with streaming telemetry and open source technologies. Equipped with anomaly detection, predictive outage analysis, forecasted bandwidth utilisation for logical Cap-Ex planning. Hosted on enterprise Kubernetes platform ensuring High Reliability, Auto Scaling, Self healing. This saved \$160K on licensing cost per year.
- Enhanced and enriched organic search feature for similar and suggested items based on customer transactions, preferences and seasonality. This boosted sales volume of general merchandize section by 12% on YoY basis.
- Programmed Process Automation for efficient assignment of Service Request among on-call engineers, across multiple teams ensuring policy compliance, effective agile tracking with follow up. Exceeded team performance by 64%
- Scanned internal repository and using Computer Vision (YOLO) to identify misleading, sensitive images of catalogue items listed on online e-commerce.

Cognizant, Bangalore

Feb 2014 – Apr 2018

- Associated with Novartis Pharmaceutical for Oncology trial Master Data Management. Automated clinical data synchronization between devices.
- Performed in-deep analysis of drug components effectiveness on subjects using Machine Learning regression, classification models. This reduced IT cost & eliminated human errors. Presented the solution to FDA, USA, 2016

Research & Publication

- US Patent on “[System and method of improving computer network system](#)”, Patent number 11316734 granted on 2022 (applied 2018)
- IEEE paper on “[Enterprise scale network monitoring system](#)” (2022)
- IEEE-ACM [industrial paper on Bots in Software Engineering](#). (2021)
- CVPR research paper on Object augmentation [under review, 2023]
- Designed and Fabricated Strip Line fed Taper Slot antenna used for satellite microwave communication with SAMEER [division of DRDO, India] (2013)