



# 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 Opensource 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, Software development and 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.
- 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.
- Implemented in-house solution for Monitoring & Configuration Management for all Network gears (Router, Switch, Load Balancer, DDI) using full open source technologies. Hosted on the enterprise Kubernetes platform ensuring High Reliability. The primary application for Private Data Centre Infrastructure Alerting. Forecasted bandwidth utilization for efficient Cap-Ex planning. Pro-Active analysis, notification with Predictive anomaly detection.
- Using Python and Unix, Process Automation for efficient distribution of Service Request among On-call engineers. Build for Large Scale environment, across multiple teams ensuring policy compliance and effective agile tracking.
- Scanned internal image repository and using Computer Vision (YOLO) to identify misleading, sensitive pictures of catalogue items listed online.

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)