Ashok Kumar

Client-Focused Data Scientist Specialist | Cross-industry expert leveraging ML/CV to address unique client challenges.
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EDUCATION

Indian Institute of Science   Bangalore, IN
Master of Design in Product Design and Engineering   07/2018 – 07/2020

Indian Institute of Technology   Delhi, IN
Bachelor of Technology in Textile Technology   06/2013 – 06/2018

SKILLS

Certifications: Databricks Foundations Partner Training, Azure Fundamentals, Intel Edge AI, iLead (internal)
Technical Skills: SQL, Python, Azure, Git, Data Mining and Wrangling, Machine Learning, Computer Vision (OpenCV/TF/PyTorch), Embedded Programming, Azure DataBricks and Pyspark, DevOps/MLOps/MLFlow, New Product Design and Development, Vertex AI, FastAPI, Anomaly Detection and Time series analysis, CAD, Digital Twin, IIoT/IoT
Languages: Hindi (Native), English (Fluent)

PROJECTS

Developing and Managing ML Models and Pipelines, JLR (UK)   04/2021 – 02/2022
- Engineered a predictive model to invite customers to Range Rover L460 launch event in London
- Leveraged logit model to predict the chance of new vehicle purchase for existing customer data, implemented machine learning algorithms, and recommended a targeted audience for the strategy. First-day bookings were ~6% compared to the past ~4%, sold an additional ~30 vehicles.

Handheld Weld Inspection Edge Device, Ltimindtree (POC)   04/2023 – 01/2024
- Pioneered a ground up laser scanning product to detect weld defects for heavy industries manufacturing thermal plants. Formulated mathematical models to work on edge devices with ~15-17 fps and real-time defect detection. Expecting to reduce inspection time by 4-fold

PROFESSIONAL EXPERIENCE

Data Scientist Specialist, Ltimindtree Ltd, Bangalore, IN   12/2022 to 09/2024
- **Customer Requirements Gathering & MVP Planning -** Engaged directly with potential customers, understanding requirements. Orchestrated and executed MVP and PoC demos to various customers (P&ID, MRI/Xray, BMI).
- **Production Plants –** Implemented and deployed a remote computer vision system utilizing OpenCV and Yolov7 to monitor the production factory processes across 4 bays. Implemented real-time dashboards visualizing precast production metrics, enabling areas of improvement in efficiency and proactive target monitoring.
Utilized segmentation model for vehicle axle manufacturing plant to detect production defects in gear teeth
- **Automotive –** Constructed object detection and segmentation models for number plate detection and car dent detection for a rental company in the US. Utilized Databricks to analyze TBs of OBD 2 sensor data for EV fleets. Uncovered insights into the sales of vehicles and growth of different production plants using NHTSA data.
- **Healthcare -** Implemented log analysis and anomaly detection using logpai and ChatGPT API.
- **Others -** Exposure to structural health monitoring, predictive maintenance and anomaly detection of IoT sensor data, CV and ML model quantizing and deployments on IoT edge devices.

Data Scientist, Mindtree Ltd, Bangalore, IN   08/2020 to 12/2022
- **Cross-functional Team Collaboration -** Collaborated with the internal team in the US, demonstrating MVP on operation research (OR) and workforce management (WFM) utilizing Gurobi optimizer and Excel solver.
- **Consumer goods -** Worked with team to create a recommendation engine to improve product sales for a consumer conglomerate. The project was awarded the best delivery project that year.

ACHIEVEMENTS & AWARDS
- **Gracias Award -** For delivering in a short period, **iWinStar Award** - For dedication to Connected Universe Group
- **Patent -** A handheld device for detecting weld defects and a method thereof IPO: 202421024373
- **New Product Development -** Developed upper arm prosthetics, carbon particle size analyzer and hand held laser weld defect analysis device, shown in the interview of Ltimindtree COO Nachiket Deshpande with ET Now [here](#)