



PRATHYUKSHA NAIR J

prathyukshan@gmail.com | (+91) 6385768587 | Chennai, India |
[Prathyuksha NairJ- LinkedIn](#) | [Prathyuksha Nair- Portfolio](#)

PROFILE

As a dedicated student in the field of Data Science, machine learning, neural networks, computer vision techniques, artificial intelligence, and Python programming, I am committed to acquiring the knowledge and skills necessary to excel in these domains. My goal is to apply this expertise to solve real-world problems, contribute to cutting-edge developments, and pursue a career in a reputable organization.

EDUCATION

Hindustan University	2020- 2024
Bachelor of Technology- Computer Science & Engineering (AI & ML)	Chennai, India
New Jyothi Central School	2019- 2020
Senior Secondary school- CBSE	Thiruvananthapuram, Kerala
Excel Central School	2017-2018
Secondary School- ICSE	Kanyakumari, India

SKILLS & EXPERTISE

Technical: Python, R, Data Science, Machine Learning & Statistical Analysis, Deep Learning & Image processing, Computer vision, C, Java, HTML, CSS, JavaScript, MySQL

Software & Tools: IBM Cognos Analytics, AWS Sage maker, TensorFlow, OpenCV, Keras, Tableau, MATLAB & various Python libraries.

Hardware: Raspberry Pi, Arduino

CERTIFICATIONS

Professional Artificial Intelligence Course- **DIAT (DRDO)**, **ISACA**- Professional Artificial Intelligence (Present), **AWS Academy Graduate**- AWS Cloud Practitioner, **IBM**- Enterprise grade AI, **IBM**- Cloud for Enterprise, **IBM**- Data Science Professional Certification (Present).

EXPERIENCE

Skill Vertex	Bengaluru, India
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Artificial Intelligence Intern

- Trained and developed various Machine Learning statistical models.
- Worked with Deep Learning computer vision tools and developed various models.

Information Systems Audit Control Association

Student Member

Chennai Chapter

Since Dec 2022

UiPath Student Developer Champions

HITS, Chennai

Robotic Process Automation Co- Ordinator

Since 2022

- Hosted various events on RPA with industry personnels
- Conducted seminars on Process Mining, UiPath

Google Developer Students Club

GDSC HITS, Chennai

Core Member- Machine Learning

Sep 2021- Jun 2022

- Hosted various Machine Learning event

PROJECTS

Analytics tool for E- Commerce Business- IBM Cloud services

- A business Intelligence Project
- An interactive AI based dashboard created using IBM cloud service known as **IBM Cognos Analytics**
- The dashboard lights up the insights of sales and profit analysis of an US superstore data both pre and post Covid
- The forecasting ability of IBM Cognos Analytics provided a very good forecast of sales in the upcoming years based on past 10 years data.

HR Analysis using Python libraries

- A Business Intelligence project done with the Human resources data from Kaggle.
- The analysis is done by using various Python libraries like **Matplotlib, NumPy, Seaborn, Scikitlearn, Plotly, Bokeh**

Leather Defect Detection

- This project was done by using **Mask Region based Convolutional Neural network** for detecting various types of defect in the leather.
- The data was taken from the live defected leather given from Central Leather Research Institute of India
- The model showed an accuracy of 95%

Smart Doorbell system using Raspberry Pi, an Adaptive Strategy block (ASB) approach

- A Raspberry pi based IoT project which was completely programmed in **Python**
- The doorbell prototype captures the image of the stranger in the door once the doorbell is pressed/triggered.
- The ASB approach works based on the end device reachability. The data communication is done via Bluetooth/ IEEE 802.11

Fraud Detection and Analysis

- An **unsupervised machine learning approach** was used in clustering the Fraudulent and Non fraudulent transactions
- **K means clustering** Algorithm was used to cluster the transactions
- **Principal Component Analysis** was done as feature extraction.
- The dataset was provided by the Kaspersky
- The accuracy score was around 97%
- This is a top 5 finalist project of ISB Datathon 22

Roadway pothole detection, a Deep learning instance segmentation approach

- This project was implemented using **Instance Segmentation** approach using YOLOv8
- The model was build using custom dataset of roadway potholes.
- The model showed an accuracy of 99.2%

Blockchain Mapping of Supply Chain Management

- A preliminary research study done on Blockchain in the Supply Chain Management
- Various **Exploratory Data analysis** is done for various phases of the Supply chain

ACHIEVEMENTS

- Second Runner Up in the Group Discussion Conducted by World Cyber Security Forum 2020
- Participated in the Student Projects Oriented for Problem Based Learning by Indo Universal Collaboration for Engineering Education. I lead my team and got a Grade B in the research project titled- "Blockchain Mapping of Supply Chain Management".
- Participated in Robowars- with 60 kg and 15 kg War robot and Hover drive, Tathva '22- Biggest Techno- Management Fest in South India, hosted by National Institute of Technology- Calicut.
- Second Runner up in IBM ICE Day Hackathon Conducted by IBM at Hindustan University
- One in Tech Scholarship Recipient- Information Systems Audit and Control Association in association with NTT Data
- Top 5 Finalist in Datathon '22 hosted by Indian School of Business, Hyderabad

PUBLICATIONS

P. N. J and T. J, "Revolutionizing leather quality assurance through deep learning powered precision in defect detection and segmentation by a comparative analysis of Mask RCNN and YOLO v8," 2024 International Conference on Advances in Data Engineering and Intelligent Computing Systems (ADICS), Chennai, India, 2024, pp. 1-6, doi: 10.1109/ADICS58448.2024.10533600.

LANGUAGES KNOWN

English- Professional level proficiency, **Malayalam, Hindi, Tamil, Japanese** Beginner level Proficiency