# NARESH KUMAR KASTHURI

kasthurinareshkumar1@gmail.com | 647-567-5858 | Mississauga, ON - Open to Relocation
linkedin.com/in/nareshkasthuri6 | https://github.com/naresh6897

## PROFESSIONAL SUMMARY

Diploma in AI/ML from Canada where I led the development of an AI chatbot using Gen AI and RAG-based LLMs to enhance student engagement on educational platforms. Master's graduate in Advanced Computer Science from the UK with a strong foundation in data engineering and cloud technologies. Former Assistant System Engineer at Tata Consultancy Services with 2.8 years of experience in R&D, specializing in data migration to BigQuery, ensuring data integrity, and optimizing processes through advanced SQL and GCP expertise. Skilled Python Full Stack Developer with hands-on experience in building scalable applications, cloud-based solutions, and automation workflows.

## EDUCATION

**Diploma| Conestoga College| Waterloo, Canada**                                                                              09/2025
Course: Artificial Intelligence and Machine Learning
**Master of Science in Computer Science** | **Cardiff Metropolitan University** | **Cardiff**, United Kingdom          11/2021
*Course: Advanced Computer Science*
**Bachelor of Technology in Computer Science and Engineering** | Jawaharlal Nehru Technological University | India     07/2019

## TECHNICAL SKILLS

**Languages:** C, C++, Java, Python, MySQL, HTML, CSS, JavaScript, TypeScript, PHP, Data Structures
**Visualization & Statistical Analysis Tools:** JMP, ETL, Orange, Oracle, DataStage, ReactJS, Tableau, SPSS
**Cloud:** Cloud Computing, Google Cloud Platform (GCP)- Big Query, IAM, Cloud Functions, Dataflow, Dataproc, Cloud Spanner, Kubernetes Engine, AWS
**Others:** Machine Learning/AI, Agile development, Software development, RESTful APIs, Internet of Things, Django
**Technical Tools:** ReactJS, Visual Studio Code, GitHub, IntelliJ, PyCharm, Postman, MS-Office

## PROFESSIONAL EXPERIENCE

**Assistant System Engineer | Tata Consultancy Services | Hyderabad, India**                                          02/2022-11/2024
**AWS Supply Chain DataLake with PowerBi**
- I designed and implemented a secure supply chain data lake pipeline on AWS, integrating Power BI to overcome limitations of decentralized data and static reports, enabling enhanced visibility and proactive decision-making in the supply chain.
- Developed a user-friendly platform for data upload, integrated with AWS Glue for automated data cleaning and transformation. Result: democratized data access, enhanced accuracy, and freed up data team's time for deeper analysis by 20%.
- Transformed Data will go to AWS Athena, which allow authorize user to run complex queries for deeper insights, leading to improved data exploration and understanding. Then the data will be stored in S3 Bucket.
- By integrating AWS S3 Bucket and Power BI, whenever new data is added to the S3 Bucket, AWS Lambda is triggered, enabling automatic updates to dynamic dashboards with the latest data. This setup facilitates proactive decision-making, leveraging real-time analytics, and has demonstrably reduced stockouts by 15%.

**Media Services**
- Developed a custom Python script to automate the creation of multilingual video content, replacing manual, time-consuming tasks such as audio extraction and timestamp alignment. Integrated AWS Transcribes machine learning capabilities to generate accurate Spanish transcriptions, effectively overcoming language barriers and ensuring consistent quality across languages.
- Utilized media processing libraries to seamlessly integrate transcribed audio back into original videos, resulting in a final product that appealed to diverse audiences.
- Achieved a 10percent reduction in time and resources spent on video content creation, enhancing team efficiency and enabling focus on strategic initiatives. Expanded audience reach by 20percent through the addition of Spanish content, fostering broader engagement and inclusivity among non-English speaking viewers.

**Academic Tutor | Self Employed | Hyderabad, India**                                                                 06/2017-05/2021
- Tutored high school students in math, science, and English, leading to a 20% average improvement in test scores.
- Created a positive learning environment by personalizing lessons and fostering strong student relationships, resulting in consistent grade improvements for 95% of students.

## PROJECTS

**FinBuddy – Smart Financial Assistant | Capstone Project, 2025**                                                         07/2025
**React.js (Next.js), FastAPI, MongoDB, Azure Blob Storage, Firebase, Facebook Prophet, scikit-learn**
- Designed and developed a web-based AI-powered financial assistant to analyze spending patterns, detect unusual transactions, forecast finances, and simulate loan repayments with predictive analytics.
- Built full-stack solution using React.js (Next.js), FastAPI, MongoDB, Azure Blob Storage, Firebase, and deployed with Docker.
- Integrated AI/ML models (Facebook Prophet, scikit-learn) for forecasting and anomaly detection, and LayoutLM OCR

for document parsing.
- Demonstrated skills in full-stack development, API design, AI/ML integration, OCR processing, data visualization, and cloud storage.

**Weather App**

**ReactJS, Open Weather API, JavaScript** **09/2024**
- Created a web application to display real-time weather updates and a five-day forecast for any searched or current location.
- Integrated the Open Weather API to provide temperature, humidity, and sky conditions.
- Delivered a user-friendly, responsive interface with dynamic data visualization.

**My Portfolio**

**ReactJS, JavaScript, HTML5, CSS** **08/2024**
- Designed and developed a personal portfolio website to showcase projects, skills, and achievements. Built using ReactJS, Tailwind CSS, and hosted on GitHub Pages with a CI/CD pipeline for automated deployments.
- Integrated dark mode, responsive design, and interactive UI elements for enhanced user experience.

**Railway Reservation Management System**

**Python, MySQL**
- This Project is to find information on availability of trains, upon entering pick and drop details and the day of travel, we must get list of all the available trains with seats and the price.
- This system can be also integrated with a booking system and an end-to-end application can be created out of this. The Purpose of this project is to provide a seamless and hassle-free system for the users to view their choice of trains

**Smart Plant Recognition**

**Angular, Django, Python, HTML/CSS** **12/2023**
- Developed a web application that identifies plants from user-uploaded photos, displaying the plant's name, scientific classification, and description.
- Built the frontend with Angular for an interactive UI and Django for efficient backend processing.
- Streamlined image analysis and data retrieval for accurate plant recognition.

**Smart Waste Sorting: A Comparative Analysis of ML Algorithms**

**Python, Scikit-learn, TensorFlow, XGBoost** **12/2023**
- Designed a machine learning model to classify waste as organic or recyclable.
- Evaluated multiple algorithms (Logistic Regression, Decision Trees, KNN, Naive Bayes, Random Forest, XGBoost, CNN) for performance.
- Achieved optimal classification results with XGBoost and CNN models.

## ACHIEVEMENTS & CERTIFICATIONS

FinBuddy – secured 2nd place at the AAIML Project Showcase 2025, hosted by Conestoga College's

PythonLife ś Certified Professional in Python.

LinkedIn Certifications Azure Devops, Prompt Engineering, Generative AI, Terraform.

Received appreciation E-mail from my manager on my initiative in the projects which increased the efficiency.