

# HEMANTH KUMAR REDDY TIYYAGURA

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**GHC 2023**

## EDUCATION

- **George Mason University** Virginia, United States  
*Master of Science - Computer Science(ML Concentration); GPA: 3.63/4* *January 2022-December 2023\**
- **SASTRA University** Thanjavur, India  
*Bachelor of Technology - Computer Science; GPA: 3.5/4* *July 2016 - July 2020*

## Relevant Coursework:

Machine Learning, Deep Learning, Analysis Of Algorithms, Software Engineering, Object Oriented Programming, Computer Vision, Python Programming, Database Systems, Natural Language Processing, Data Structures, Web Programming, Cloud Computing

## SKILLS

- **Technologies:** Machine Learning, Deep Learning, Open-CV, NLP, Cloud Computing(AWS), Full Stack Development
- **Languages:** Python, SQL, HTML, CSS, C, Java
- **Frameworks:** Scikit, Django, NLTK, Streamlit, TensorFlow, Keras, Pytorch, Flask, Angular
- **Tools:** Power BI, Tableau, Kubernetes, Docker, Git, Informatica MySQL, MS Excel, MS Power Point, MS Word
- **IDE:** Google Colab, Spyder, Pycharm, JupyterLab
- **Platforms:** Windows, AWS, Linux
- **Soft Skills:** Leadership, Event Management, Time Management

## EXPERIENCE

- **Cognizant Technology Solutions** India  
*Programmer Analyst (Full-time)* *Aug 2019 - Nov 2020*
  - In my role at CTS, I spearheaded a transformative project that harnessed a suite of AWS services to build a robust and scalable **REST API** for retrieving customers data
  - Integrated AWS services including **API Gateway**, **CloudFormation**, **Lambda**, and **RDS** for efficient customer data retrieval, **IAM** for user access control
  - Provided dedicated support to R-Studio developers through the **Jira portal**, assisting with troubleshooting and issue resolution.
  - Leveraged **SQL** expertise to investigate and diagnose data discrepancies, anomalies, and performance bottlenecks within the **Tableau** data sources.

## PROJECTS AND PUBLICATIONS

- **EcoClassifier-Flask-based Garbage Classification Web App: (Flask, Python, CNN, Tableau, Pytorch, HTML)**
  - Developed an innovative Flask-based web application that utilizes CNN to classify waste materials into recyclable or organic categories with PyTorch to achieve accurate waste classification(92% accuracy)
  - The user-friendly web interface allows individuals to upload images of waste items and receive instant predictions, promoting sustainable waste management practices and raising awareness about recycling.
  - Integrated Tableau for data visualization, presenting waste management insights and trends.
- **New York Taxi Fare Prediction: (Streamlit, Python, Regression, ML, scikit, folium, seaborn)**
  - Designed a Streamlit web app for New York taxi fare prediction using Ridge and Lasso regression techniques, with data transformation and visualization using Folium and Seaborn.
  - Utilized Python programming and data science libraries to create an intuitive and user-friendly interface for predicting taxi fares.
- **Facial Emotion Recognition using YOLO and CNN : (Python, CNN, Scikit, Pytorch, Computer Vision)**
  - Published a research project in Springer, presenting a comprehensive facial recognition system that integrated Haar Cascade for facial detection, data augmentation to enhance dataset diversity, and CNN for emotion classification.
  - Paper Title: **Recognition of Facial Expression Using Haar Cascade Classifier and Deep Learning**
  - IEEE Publication Link: [https://link.springer.com/chapter/10.1007/978-981-16-5529-6\\_27](https://link.springer.com/chapter/10.1007/978-981-16-5529-6_27)
- **Full Stack Ecommerce Website: (Django, MySQL, Bootstrap, HTML, CSS, Python, Rest API, CRUD)**
  - Developed a full-stack ecommerce website using Django framework with Bootstrap for responsive user interfaces featuring user authentication for secure login and registration.
  - Collaborated in implementing CRUD operations, enabling users to effortlessly add items to the cart and manage their selections using POST, GET, and PUT data interactions.

## CERTIFICATIONS AND AWARDS

- Actively participated in an NLP-focused hackathon organized by NIT Patna, securing 81st position.
- Certifications from Dockship platform for active participation in data science challenges. DOCKSHIP.
- Participated in the Robotics Conference organized by IEEE held at SASTRA University, Thanjavur, India

To explore more of my projects, please visit my portfolio at: [Portfolio](#)