Keerthi Gopireddy

Data Scientist | Machine Learning Engineer

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PROFESSIONAL SUMMARY

***AI** and **Data enthusiast** with **4 years** of professional experience in delivering data-driven **AI/ML** solutions, holding a *Master's in Artificial Intelligence*. Expertise in predictive modeling, data analytics, and model deployment in cloud-based production environments, with proven success in optimizing processes and enhancing model accuracy. Strong domain knowledge in logistics, inventory management, and digital advertising with a focus on easily understanding business needs. Actively seeking cutting-edge opportunities in the field of *Artificial Intelligence/Machine Learning*.*

EDUCATION

University of North Texas | Denton, Texas — *Jan 2023 - Dec 2024*

*Master of Science, **Artificial Intelligence** | **CGPA: 4.0***

Jawaharlal Nehru Technological University | Hyderabad, India — *Jul 2014 - May 2018*

Bachelor of Technology, Electronics and Telematics

SKILLSET SPOTLIGHT

Programming Languages: Python, SQL, HiveQL, MATLAB

Data Analysis & Visualization: Excel, SPSS, Tableau Desktop, Power BI, Dataiku, RapidMiner, ETL Pipelines

Frameworks and Libraries: TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas, Seaborn, Matplotlib, NLTK, OpenCV

Machine Learning & AI: Supervised and Unsupervised Algorithms, Neural Networks, NLP, Feature Engineering, Model Evaluation & Deployment, ML Ops, GANs, Cloud-based production/test environments, AutoML, A/B Testing

Mathematical Foundations: Probability, Descriptive and Inferential Statistics

WORK EXPERIENCE

Wipro Technologies — ***Hyderabad, India*** — ***Data Scientist*** — ***Aug 2021 to Dec 2022***

- Performed *exploratory data analysis* followed by feature selection on 150+ features using XGBoost - increased the true positives by ~4% in the Huawei Ads Platform
- Automated capturing KPIs from the *cloud-based* test environment using *Python* and reduced manual effort by 10%
- Implemented early stop on a *Deep Learning* model, and deployed it in the *cloud-based* production environment - led to an increase in the KPI (AUC) by ~4% for predicting ad click-through probabilities
- Developed *ETL pipelines* to automate data preprocessing using Dataiku for Citibank within an Agile environment, reducing the load by ~45%

Amazon Robotics — ***Hyderabad, India*** — ***Data Analyst*** — ***Aug 2018 to May 2021***

- Streamlined *dislike mechanism* to eradicate low confidence *machine learning* outputs which increased the probability of identifying the *root cause* by 30% and decreased manual effort by ~20%
- Served as the *Subject Matter Expert* (SME), leading the alignment of standard operating procedures for feature identification across four machine learning models, ensuring alignment with business needs
- Automated mail triggers and weekly reports sent to fulfillment centers using *Microsoft SharePoint* decreasing the manual effort by ~70%
- Performed *quality analysis* on low-confidence *machine learning predictions* to identify the *root causes* leading to implementing corrective measures at fulfillment centers
- Solely worked for Canvas, a robot used to transport items in fulfillment centers, focusing on visual inspection, image segmentation, and feature extraction to build a novel model using neural networks

ACHIEVEMENTS AND ACCREDITATIONS

- Merit Certificate with Excellent Grade in '***Advanced Artificial Intelligence and Machine Learning Program***' from IIIT Hyderabad (Dec 2018 to March 2019)
- '***Lean Six Sigma*** *Yellow Belt Certification*' by ACES Academy at Amazon for performing quality analysis on trouble ticket process
- Awarded with **'*Champion IDS Research Analyst*'** in Q2 2020, Q3 2020, and Q1 2021 at Amazon for expertise in root cause analysis and feature identification
- Accredited as the '*Most Valuable Player*' in the audit team for the year 2020 at Amazon for streamlining the trouble ticket process
- Recognized as '*Outstanding Contributor*' in February 2022 by the client (Huawei) at Wipro Technologies for performing effective hyper-parameter tuning eventually increasing the ad click-through rate
- Certified as an ML Practitioner and Advanced Designer by *Dataiku*
- Completed LeetCode "***SQL 50***" and "*Intro to Pandas*"

KEY MACHINE LEARNING PROJECTS

Participated and completed 8 hackathons as a part of the '**Advanced Certification Program in Artificial Intelligence and Machine Learning'** organized by IIIT Hyderabad and Talent Sprint. Main Hackathons include:

- **Literacy rate prediction | Colab using Python | Jan 2020**

  Trained a multi-class classifier to predict the literacy rate as high/ medium/ low in different districts of India using multiple datasets. Compared the performance of multiple machine learning algorithms both parametric and non-parametric.
- **Facial Recognition using Siamese Network | Colab using Python | Mar 2020**

  Trained a neural network model (Siamese Network) using celebrity faces dataset to identify the similarities and differences between faces. The model was able to identify the actor in the image with more than 85% accuracy.

Developed multiple machine learning and deep learning models as a part of my Master's program on **Artificial Intelligence** at the **University of North Texas**. Key projects include:

- **Leveraging Deep Learning Models for Bird Species Classification | Deep Learning | Fall 2023**

  Trained a multiclass classification model using Convolutional Neural Network (CNN), ResNet, DenseNet, and Vision Transformer (ViT) models involving training on feature-augmented image data to capture complex visual characteristics. Used ensemble methods to stack all the models and achieved a testing accuracy of 93% on unseen data.
- **Generating Synthetic Faces using Generative Adversarial Networks | Machine Learning | Spring 2023**

  Developed a generative AI model using GAN model architecture capable of producing realistic, high-quality synthetic faces indistinguishable from real faces. GAN uses a generator and discriminator to produce fake faces. The model was able to produce fake faces which do not exist in the dataset. This was implemented using Python programming language on the Google Colab using TPU.
- **Pneumonia Detection using Neural Network | Software Development for AI | Spring 2023**

  Trained and improved the ability of a Convolutional Neural Network to identify if a patient has pneumonia using X-ray images. Created a local website to display the prediction when a new X-ray image is uploaded. The model was able to classify with more than 90% confidence level. Training of the model was done using Python programming language and deployment of the model to a local webpage was done using Streamlit.

CO-CURRICULAR ACTIVITIES

- Worked as a **Digital Imaging Student Assistant** (Feb 2023 - Dec 2024) at the University of North Texas:
  - Captured metadata for 3000+ letters to preserve historical records
  - Digitized 20+ archival books and ledgers with perfection for preservation
- Participated in **MATLAB Arduino** course and completed a mini project on CNC controller
- Participated in the '**Ethical Hacking**' workshop conducted in Technocruise Hyderabad by Techkriti, IIT Kanpur