Yash Girishbhai Amethiya

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Education:

Master of Science in Computer Science   Expected May 2024
Lakehead University, *Thunder bay, Ontario, Canada*

Bachelor of Technology, Computer Engineering   July 2018 - May 2022
Dharmsinh Desai University, *Nadiad, Gujarat, India*

Experience & Internships:

Research & Project Intern   December 2021 – April 2022
Institute for Plasma Research, *Gandhinagar, Gujarat, India*
- Led a team of 4 for developing a project named "Deep Learning for object detection in a live video feed".
- Collected around 15000 images using web scrapping and pre-processed them and labelled them using Labelimg.
- Achieved accuracies above 95% by Transfer learning from deep neural networks like MobileNet, ResNet, Inception, and VGG for image classification and did object detection using TensorFlow.
- Integrated 4 different models into a web application using Django Framework for live object detection.

Machine Learning Intern   May 2020 - July 2020
Verzeo, *Bengaluru, Karnataka, India*
- Studied and developed a state-of-art Machine Learning algorithm.
- Conducted descriptive analysis and statistical analysis on more than 7400 data samples.
- Investigated the data using data visualization with Seaborn and Matplotlib libraries to find hidden insights.
- Applied all the working knowledge to develop a car price prediction model & attained 91.1% real-time test accuracy.

Projects:

Walmart stock price prediction *(Skills: Pandas, Keras, Matplotlib, LSTM)*
- Obtained past 10 years from 2013 to 2023 of stock data from yahoo finance.
- Examined the 2500 plus stock data instances through Time series analysis.
- Trained an LSTM model with a mean absolute percentage error (MAPE) of 0.016.
- Forecasted more than one year's stock trend and closing price.

Online vehicle renting system *(Skills: Django Framework, Jinja3, Bootstraps, SQLite3)*
- Designed and developed a web system using Django Framework for online vehicle booking/renting.
- Accelerated the performance with optimized programming & reduced system failure metrics for parallel requests.
- Fashioned the user interface using Bootstraps and CSS for easy single-button click navigation.
- Operated and loaded the live user, vehicle and rent request data using Jinja.

Student grade prediction *(Skills: Naïve Bayes, Pandas, NumPy)*
- Conducted Quantitative analysis for 1000 students' data based on 8 key features.
- Evaluated the grading system according to India's CSBE scoring pattern after applying one-hot encoding.
- Implemented Naïve Bayes from scratch without using any external toolkits.

Research Paper:

Comparative Analysis of Breast Cancer Detection using Machine Learning and Biosensors
Publication: **Elsevier**, Journal: **Intelligent Medicine**   Published: October 2021
Authors: Yash Amethiya, Prince Pipariya, Shlok Patel, Manan Shah

Skills and Expertise:

- Programming: C, Java, Python, PHP, JavaScript
- Technologies: Machine Learning, Data Analysis & Visualisation, Deep Learning, HTML, CSS, Bootstrap
- Databases: SQL, MySQL, MongoDB, SQLite3
- Familiar: Angular, Node.js, Express.js, React.js, D3.js, socket.io, JSP, AWS, GCP, OAuth
- Tools: Git, Postman, Labelme, Labelimg, Excel, Powerpoint presentation, Tableau

Volunteering:

- **Anurakti:** Bhumel Village (December 2019 – February 2020): Mathematics Tutor.
- **Lakehead University International:** Thunderbay, Ontario (January 2023): International Orientation Volunteer.