Trushna Patel
North York, M2J 1M6 ON 437-265-1531
trushnapatelit.39@gmail.com
linkedin.com/in/trushna-patel3101

Professional Summary

Results-driven Data Scientist with Deep Learning, Machine Learning, and Computer Vision expertise. Proven ability to design and implement innovative models and algorithms using TensorFlow, PyTorch, and Keras. Adept at presenting award-winning research, including a notable paper on "Object Detection based Automatic Image Captioning using Deep Learning." Skilled in critical thinking and problem-solving, with a track record of successfully addressing complex challenges and optimizing model performance. Strong communicator and team player with experience extracting meaningful insights from data through Feature Engineering and NLP techniques. Dedicated to leveraging advanced analytical skills to drive business decisions and enhance operational efficiency.

Skills & Qualifications

- **Deep Learning & Machine Learning:** Researched, designed, and executed innovative models and algorithms using TensorFlow, PyTorch, and Keras.
- **Computer Vision:** Familiar with object detection, segmentation, and classification techniques.
- **Research & Presentation:** Presented award-winning research on "Object Detection based Automatic Image Captioning using Deep Learning."
- **Critical Thinking & Problem Solving:** Successfully addressed complex challenges in academic projects, analyzing problems and finding effective solutions.
- **Communication:** Strong verbal and written communication skills, collaborating effectively in team settings.
- **Model Evaluation & Optimization:** Determined and optimized Deep Learning models to enhance performance.
- **Feature Engineering:** Extracted meaningful insights from data, improving model accuracy and analytical capabilities.
- **Natural Language Processing (NLP):** Applied techniques like stemming and vectorization to extract insights from unstructured text data.

Certifications

- Artificial Intelligence Foundations: Neural Networks – Issued November 2023
- Neural Networks and Convolutional Neural Networks Essential Training – Issued November 2023
- Recurrent Neural Networks – Issued November 2023
- Deep Learning: Getting Started – Issued March 2023
- Google Data Analytics Professional Certificate – In Progress – I can effectively handle data based on the projects I have completed and the knowledge gained from this certificate.

Honors & Awards

- Gold Medal for Academic Excellence at BVM Engineering College (M. Tech) – Awarded in 2022
- Dean’s Honor at Lambton College - Awarded in 2024

Education

Graduate Certification in Artificial Intelligence and Machine Learning (GPA: 3.40)

Lambton College, Toronto | January 2023 – August 2024

- Courses: Introduction to Artificial Intelligence, Python Programming, Data Science and Machine Learning, Neural Networks and Deep Learning, Natural Language Processing

Master's of Technology in Computer Engineering (CGPA: 9.89)

Birla Vishvakarma Mahavidyalaya (BVM), Anand, Gujarat, India | August 2018 – July 2020

- Developed a Computer Vision project using Keras, TensorFlow, NumPy, and OpenCV

Bachelor of Engineering in Information Technology (CGPA: 9.47)

Madhuben and Bhanubhai Patel Women Institute of Engineering for Studies and Research in Computer and Communication Technology (MBICT), Anand, Gujarat, India | August 2014 – July 2018

- Illustrated a project for "Kids Game" using Unity3D game development software

Work Experience

Assistant Professor

Birla Vishvakarma Mahavidyalaya (BVM), Anand, Gujarat, India | March 2021 – November 2022

- Enhanced student learning in AI, C, Web Development, and Algorithms courses, increasing exam scores by 25%.
- Streamlined class documentation processes, improving efficiency by 20%.
- Guided students on innovative projects, achieving a 25% increase in project quality.
- Elevated technical expertise of ML students, leading to a 90% success rate in Project Expo.
- Serving as an IT help desk support during new admissions for student support.

Projects

- **Object Detection-Based Automatic Image Captioning:** Utilized VGG16, YOLO, and LSTM, achieving a comprehensive understanding of deep learning techniques.
- **TTC Bus Delay Analysis:** Achieved 95% accuracy in predicting delays using Decision Trees, Random Forests, and KNN models.
- **Airline Customer Satisfaction Analysis:** Applied Decision Tree and Random Forest models, with Decision Tree achieving 95% accuracy.
- **Airbnb Price Prediction and Demand Forecasting:** Exercised XGBoost and CatBoost models, attaining a 70% testing score.
- **YouTube Metadata Analysis:** Extracted and analyzed data using Google-api-client and VADER Sentiment Analysis.
- **AI Image Editor "Illustrix":** Employed Computer Vision techniques for advanced image operations.
- **Virtual Psychiatrist Chatbot:** Developed using GPT-2, with front-end in React JS and Fast API.

Reference

Available upon request.