Niharika Sojitra

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PROFESSIONAL OVERVIEW

Passionate M.Sc. Computer Science graduate certified in Power BI and Tableau, specializing in ML and DL technologies like NLP, Pattern Recognition, Computer Vision, Data Mining, and ETL. With three years of hands-on expertise in WordPress web development, I excel in analytical skills, data analysis, and detail-oriented problem-solving. Eagerly embracing opportunities for continuous learning and growth in the dynamic world of technology.

TECHNICAL SKILLS

- *Languages*: Python, SQL, PHP, HTML, CSS, JavaScript
- *ML libraries:* NumPy, Pandas, PyTorch, TensorFlow, Keras, NLTK, scikit-learn, Matplotlib, OpenCV, PyTrader
- *Platforms & Tools*: Tableau, MS PowerBI, MS Excel, AWS, MySQL, SQL Servers, WordPress, Google Analytics
- *Other Tools*: Adobe Photoshop, MS Office

EDUCATION

Lakehead University   Sep 2021 - May 2023
Master of Science: Computer Science   *Thunder Bay, ON, CA*

Gujarat Technological University   Aug 2014 - Oct 2018
Bachelor of Engineering: Information Technology   *Morbi, GJ, IN*

RESEARCH PROJECTS

Toxicity-Classification-and-detoxification *| Python, Tensorflow, Keras, Sklearn, PyTorch, Gradio*   Sep 2022 – Mar 2023
- Pioneered LLM-NLP research to combat online abusive speech, achieving a 94.34% accuracy with DistillBERT for toxicity classification and introducing t5-paraDetox for effective comment detoxification using multiple data resources.
- Developed a transformative user API with Gradio to convert toxic comments into civil discourse, showcasing expertise in leveraging machine learning for safer online interactions.

Analyzing and experimenting on novel Oracle-Mnist dataset *| Python, Tensorflow, Keras, Sklearn*   Sep 2022 – Dec 2022
- Undertaken advanced research in computer vision by surpassing benchmark accuracy on the challenging Oracle-MNIST dataset, which consists of one of oldest handwritten hieroglyphs from China with unique noises and distortion in images caused by three-thousand years of burial and aging, achieving a remarkable 94.97% classification accuracy using a CNN.
- Leveraged data visualization, deep learning, hyperparameter tuning and cross-validation techniques to analyze and enhance image classification models, showcasing expertise in cutting-edge computer science methodologies.

Speech to text processing in Medical field *| Python, NLP, NLTK, Matplotlib, Numpy, Pandas*   Jan 2022 – Apr 2022
- Pioneered the transcribing of prescriptions from speech to text using NLP text processing methods and machine learning models to categorize disease types. Real-time speech-to-text conversion was employed by SpeechRecognition APIs.
- Due to limited prescription text data, a Kaggle dataset, 'Medical Text' with 14,438 entries, was utilized. Machine learning models, including Multinomial DB, Random Forest, SVM, and KNN, were employed for disease categorization, with SVM achieving the highest testing accuracy of 69.5%. Using DL approaches, it still has major scope for improvement.

Empty Shelf Detection *| Python, OpenCV, Matplotlib, Plotly, Numpy, Pandas, VGG Image Annotator*   Sep 2021 – Dec 2021
- Developed an advanced out of stock detection system employing image segmentation and bounding box-based object detection to enhance on-shelf product availability in retail stores.
- Manually annotated data, image segmentation that robustly detects the voids as the region of interest, is the input to the machine learning model, MRCNN, improving benchmarking results at 79.4%.

PROFESSIONAL EXPERIENCE

Customize Theme   Jun 2018 - Aug 2021
A web development company helping to boost businesses, with more than 1687 completed projects and 10+ years of experience.
Junior Web Developer
- Led a team of 5 in developing visually appealing and responsive website themes and plugins, utilizing **WordPress**, **PHP**, **HTML5**, **CSS3**, and **JavaScript**.
- Conducted performance analysis and implemented optimization techniques such as image optimization and caching to reduce website loading times to 1-2 s.
- Executed SEO-driven content strategies, promptly identified and resolved issues through effective debugging, and ensured website functionality and responsiveness thorough testing.
- Received commendations for detailed documentation, ensuring seamless backups, deployments, and efficient time management across 20+ website iterations.
- Projects: Shiroya , Radha, Calid's Food, Harakh etc.

Akash Technolabs   Sep 2017 - Feb 2018
The multi-national enterprise IT solutions company, with more than 11 years of competence in web and mobile development.
PHP Trainee – Internship
- Achieved proficiency in web development with PHP, with experience in building responsive web pages using HTML5, CSS3, and JavaScript, and adept at manipulating SQL databases using **MySQL**.
- Built a resilient PHP website, seamlessly integrating front-end and database functionalities, realising a 25% reduction from the projected timeline through meticulous customer requirement understanding and proactive engagement from project inception.

CERTIFICATES

Programming with **Python**; **Power BI** for Beginners; Introduction to **Data Mining**; Introduction to **Data science**; Introduction to **Data Analytics**; **Tableau** Training; Introduction to **Generative AI**; Introduction to **Google Analytics 4**.