ANNEPU HYNDHAVI

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PROFESSIONAL SUMMARY

Results-driven AI and Data Science professional with hands-on experience in developing AI/ML models and data-driven solutions using Python, TensorFlow, and NLP. Adept at building scalable applications and enhancing business processes through deep learning and data visualization techniques. Passionate about delivering actionable insights and optimizing AI-driven solutions for real-world applications. Proven ability to collaborate with cross functional teams and deliver impactful AI solutions.

SKILLS

Programming Languages: Python, SQL, HTML, CSS, JavaScript (Basic)
Machine Learning Frameworks: TensorFlow, Scikit-learn, Weka
Data Visualization: Matplotlib, Seaborn, Plotly, Google Colab
Specialized Skills: NLP, Time Series Analysis, Deep Learning (CNN, RNN), Data Wrangling
Tools: Git, MS Office, Adobe

CERTIFICATES

Python for Data Science, AI & Development – IBM
Getting and Cleaning Data – Johns Hopkins
Introduction to AI – IBM

PROFESSIONAL EXPERIENCE

Alpha AI — Remote
Data Scientist Intern — June 2021- July 2021

VISUALIZATION TOOLKIT

- Led the development of an interactive web application, reducing data visualization time by 30% through optimized processing workflows
- Collaborated with cross-functional teams to enhance visualization features, leading to a 20% increase in user engagement.
- Designed a user-friendly interface ensuring seamless data entry and robust backend processing for data validation and quality assurance.
- Implemented diverse visualization techniques, including bar graphs, pie charts, and density plots using libraries such as **Seaborn, Matplotlib, Plotly, and Pandas.**
- Collaborated with the development team to integrate visualization features.

- Optimized data processing workflows to enhance visualization accuracy and performance across multiple datasets.
- **Conducted performance testing** to ensure visualization load times were optimized, improving application responsiveness by analyzing data rendering efficiency.

ACADEMIC PROJECT EXPERIENCE

Generative AI-Powered Plagiarism Detection: Advancing TextGuard with GANShield (Aug 2023 – Dec 2023)

- Developed **GANShield**, an advanced plagiarism detection system by integrating **Generative Adversarial Networks (GANs)** with **BERT (Bidirectional Encoder Representations from Transformers)** to enhance text similarity analysis.
- Improved detection accuracy by leveraging deep learning techniques to identify paraphrased and obfuscated text effectively.
- Conducted extensive training on large-scale text datasets, fine-tuning the model to reduce false positives by 15%.
- Designed and implemented efficient data preprocessing workflows for text cleaning and embeddings, ensuring optimal model performance.
- Implemented adversarial training strategies to enhance model robustness against sophisticated paraphrasing techniques.
- Utilized **transformer-based encoders** to improve contextual understanding and semantic matching in text similarity analysis.

Pneumonia Detection Using CNN (U-Net) (May 2023 – July 2023)

- Designed and implemented **Convolutional Neural Networks (U-Net architecture)** to accurately detect pneumonia in chest X-ray images.
- Pre-processed medical image datasets and applied **data augmentation techniques** to enhance model robustness and generalization.
- Evaluated model performance using key metrics, including **accuracy, precision, recall, and F1-score**, to ensure diagnostic reliability.
- Contributed to the development of **automated diagnostic tools**, facilitating faster patient care and improved healthcare outcomes.

Language Translation Using Transformers (Jan 2023 – May 2023)

- Built a language translation model using **Transformer architecture**, enabling accurate text translation between multiple languages.
- Trained the model on a large multilingual corpus, experimenting with hyperparameters and optimization techniques to improve translation accuracy.
- Implemented preprocessing techniques such as tokenization and embeddings to enhance model efficiency and performance.
- Achieved significant improvements in translation accuracy through iterative model tuning and evaluation.

- **Integrated attention mechanisms** to improve the model's ability to capture longrange dependencies and contextual relationships, resulting in enhanced translation fluency and coherence.

Traffic Signal and Object Prediction Using TensorFlow (Nov 2022 – Dec 2022)

- Developed an **image recognition system** using **TensorFlow** and deep learning models to accurately predict traffic signal lights and detect objects.
- Enhanced object detection accuracy by applying **data augmentation techniques** to preprocess and optimize image datasets.
- Evaluated model performance using industry-standard metrics such as **mean average precision (mAP)** to ensure reliability and effectiveness.
- Integrated real-time inference capabilities to enable quick & accurate detection of light

Handwriting Recognition Using CNN (Aug 2021 – Dec 2021)

- Developed a handwritten digit recognition system using **Convolutional Neural Networks (CNNs).**
- Processed and analyzed image datasets to enhance model accuracy and recognition capabilities.
- Achieved high accuracy by optimizing the model with dropout and batch normalization techniques.

AI Game Learning Using Genetic Algorithms (Jan 2021 – May 2021)

- Implemented a **genetic algorithm-based AI model** to train a neural network for playing the game *Flappy Bird.*
- Designed fitness functions to evolve the AI model through generations, improving gameplay performance.

EDUCATION

KENT STATE UNIVERSITY, Kent, OH
MS in Artificial Intelligence
Relevant Coursework: Artificial Intelligence, Advanced Artificial Intelligence, Machine Learning, Algorithmic robotics, Advanced database, and system design, computational health informatics, Practicum in AI,

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES, Dehradun, India
B.Tech in CSE (AI & ML) **(Jun 2018 - Aug 2022)**
Relevant Coursework: Machine Learning, Data Mining and Prediction, Neural Networks, Operating Systems, Deep Learning, Natural Language Processing