PAVAN KUMAR DHARMOJU

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Technical Skills

- **Programming Languages:** Python, R, SQL, MySQL, PostgreSQL, MongoDB.
- **Machine Learning/Deep Learning:** TensorFlow, Keras, Scikit-Learn, PyTorch.
- **Data Analysis & Visualization:** Pandas, NumPy, Matplotlib, Seaborn, Tableau.
- **Big Data & Cloud Platforms:** Apache Spark, AWS, Azure, Google Cloud.
- **Tools & Technologies:** Git, Docker, Kubernetes, JIRA.
- **Specialties:** Deep Learning (CNNs, RNNs, LSTM, GANs), NLP (BERT, GPT), Computer Vision.

Education

- **Northwestern University**, Chicago - *M.S. in Artificial Intelligence.* Aug 2023 - Dec 2024
- **Indian Institute of Technology Madras** - *Diploma in Data Science.* Dec 2021 - May 2023
- **Chaitanya Bharathi Institute of Technology** - *B.E. in Electrical and Electronics.* Aug 2017 - May 2021

Experience

- **Deloitte Consulting USI**, Business Technology Analyst. Aug 2021 - Aug 2023
  - Spearheaded AI implementations that enhanced workflow efficiency by 15%, reducing operational bottlenecks.
  - Developed sophisticated Python automation tools, slashing manual errors by 25% and boosting operational accuracy.
  - Refined SQL query processes, achieving a 20% reduction in data retrieval times and accelerating the pace of data analysis.
  - Initiated and led AI integration projects, fostering technological synergy and enhancing collaborative innovation.
- **Healee**, AI Intern. Jan 2024 - Current
  - Orchestrated analytics to boost marketing ROI by 13%, showcasing impactful data-driven optimizations.
  - Engineered targeted campaigns using analytics, resulting in a 10% increase in client acquisition and user experience.
  - Applied predictive modeling to allocate marketing budgets more efficiently, reducing costs by 15%.

Research Publications

- **"Forecasting Electrical Demand for Residential Sector Using Deep Learning"**, IEEE AIMV, 2021. [Link]
- **"Ranking System for All Tourism Related Industries Using NLP Approach"**, IEEE ICCCNT, 2022. [Link]
- **"Graph Convolutional Networks: Adaptations and Applications"**, IJISRT, 2021. [Link]

Projects

- **Geographical Atrophy Detection for Ocular Health[Research with Feinberg School of Medicine].**
  - Created a ResNet50 based model, with a geographical atrophy detection accuracy by 30%, redefining diagnostic standards.
  - Enhanced model precision by 25% through image processing, boosting early and accurate ocular disease diagnosis.
  - Facilitated interdisciplinary collaboration, resulting in a scalable diagnostic tool poised to improve ocular health.
- **Exploration of LLMs in Recommendation Systems [Research under CASMI, Northwestern].**
  - Led bias research and mitigation at CASMI, enhancing fairness and accuracy in AI-driven recommendations systems.
  - Conducted empirical studies on LLM biases, developing strategies that measured recommendation system fairness.
  - Pioneered novel bias quantification techniques for LLMs, improving recommendation system reliability and equity.
- **Electrical Load Forecasting Using Deep Learning (LSTM) [Thesis Project].**
  - Engineered an LSTM model with 94.6% accuracy, setting a new standard in electrical load forecasting.
  - Leveraged feature engineering to boost forecasting precision by 30%, significantly enhancing predictive reliability.
  - Validated the LSTM model using 5 years of historical data, confirming its robustness and reliability across conditions.
- **Gmail AI Reply Assistant Chrome Extension**.
  - Developed a Chrome extension to automate email replies, reducing response time by 40%, and enhancing efficiency.
  - Managed over 1,000 weekly user emails, optimizing communication workflows and user engagement.
  - Ensured user data security and compliance with Google standards by implementing OAuth 2.0, reinforcing privacy.
- **Restaurant Rating System Using NLP and BERT**.
  - Directed a project for rating 130 New Delhi hotels by processing over 10,000 customer reviews using NLP.
  - Applied BERT for sentiment analysis, achieving 90%

Leadership Experience

- **President, IEEE CBIT:**
  - Catalyzed membership growth by 200%, founding two new societies and orchestrating operational and event strategies.
- **Under-Secretary-General, CBITMUN:**
  - Directed a team for Model UN, managing logistics and overseeing coordination for an event with over 400 participants.