Namratha Reddy Kareddy

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Aspiring Software Development Engineer specializing in machine learning and software development, with a focus on designing and implementing reliable & maintainable solutions.

Technical Skills

- **Primary**: Data Structures and Algorithms, Python, C++, Java, Machine Learning, R
- **Frameworks**: Angular, React
- **Database**: MySQL, Oracle
- **Scripting and Markup**: TypeScript, HTML, CSS, JavaScript, Bootstrap, PHP
- **Source Control Tools**: Git
- **Certifications**: OCI Generative AI Professional
- **Other**: SAFe Agile, REST APIs, Selenium, Kafka

Education

- **University of Texas at Dallas** — Dallas, Texas, USA
  Master's in Computer Science — *Jan 2023 - Dec 2024*
  - **Coursework**: AI, ML, Big Data Management & Analytics, Design & Analysis of Computer Algorithms, Database Design, Web Programming Languages, Quantum Computing, Computer Graphics, Computer Animation & Gaming
- **National Institute of Technology, Agartala** — Tripura, India
  Bachelor of Technology in Electronics & Communication Engineering — *Aug 2018 - May 2022*

School Projects

- **Qualcomm Stock Prediction using RNNs and LSTM**: Investigated LSTM and Decision Tree Regressor models for stock price prediction, achieving 85% accuracy by identifying patterns in historical data and capturing long-term relationships.
- **Nine Men's Morris Game**: Developed a Python-based game focused on AI logic, user interface, and an AI opponent using Minimax algorithm.
- **GAN-Based Face Rotation for Creative Portraits**: Built a GAN model to creatively rotate portrait photos, achieving artistic rotations by optimizing model architecture and loss functions.
- **3D Gaussian Splatting for Real-Time Radiance Field Rendering**: Created an ML-based rendering system using Gaussian models to produce photorealistic images from 3D data, integrating advanced rendering techniques for complex scenes and lighting.
- **Airline Passenger Satisfaction Analysis**: Evaluated linear and non-linear algorithms for predicting passenger satisfaction, optimizing model accuracy by feature selection with a decision tree, and fine-tuning hyperparameters to achieve 92% accuracy.
- **Bookstore Website**: Developed and documented a bookstore website with features including login, book management, and user logout. Implemented automated tests using Selenium to ensure functionality.

Work Experience

- **Intern at Digite, Inc.** — India | June 2022 - November 2022
  - **Work Summary**: As a Front-end engineer intern, collaborated with the design team to enhance website UX and improve performance. Developed and implemented web application features using React. Focused on bug resolution and problem solving to ensure a seamless user experience.
- **Intern at SmartKnower** — India | June 2021 - July 2021
  - **Work Summary**: Developed an eye iris prediction model using image data processed with Histogram of Oriented Gradients (HOG) features and a Support Vector Machine (SVM) achieving 95% accuracy. Assessed model performance using precision, recall, and F1-score, leveraging Python, Scikit-learn, NumPy, Pandas, and Matplotlib.

Achievements and Extracurriculars

- **Scholarship**: Awarded academic scholarship at the University of Texas at Dallas.
- **JEE Mains Engineering Entrance Test**: Secured 97th percentile in the test taken by around 2 million students.
- **Leadership**: Served as Finance Head of Sanganan Prayog and Vice President of Aveg Club at NITA.