Varsha Vulli

352-709-3019 varshavulli@ufl.edu LinkedIn-varsha-vulli Github-VulliVarsha MyPortfolio

Education

University of Florida, Florida, US **August 2022 – May 2024**
Master of Science in Computer Science *GPA: 3.92/4*

Coursework: Analysis of Algorithms, Mathematics for Intelligent Systems, Distributed Operating System Principles, Machine Learning, Human-Computer Interaction, Advance Data Structures, Computer Networks, Entrepreneurship for Engineers, Emerging Computing Concepts

PES University, Bengaluru, India **August 2018 – May 2022**
Bachelors of Technology in Computer Science and Engineering *CGPA: 8.36/10*

Technical Skills

Programming Languages: Python, C++, C, Java, SQL, NoSQL, R, MATLAB
Web Technologies: HTML, CSS, Javascript, Django, Node.js, React, Angular, Express, Tailwind CSS, Bootstrap, Redux
Data and Analytics: Tableau, PowerBI, Anaconda, Tensorflow, Keras, PyTorch, NLP, OpenCV, Spark, Hadoop, Hive, MongoDB
Cloud and DevOps: Git, Visual Studio Code, Linux, AWS, GCP, BigQuery, Microsoft Azure, Docker, Kubernetes

Experience

University of Florida **February 2023 – Present**
Graduate Student Assistant *Florida, US*

- Conducted a comprehensive literature review to identify risk factors, catalyzing the implementation of preventive measures and achieving a 30% reduction in cancer incidence.
- Leveraged Python and Pandas framework to clean and analyze EHR data of over 100,000 patients, leading to the identification of sepsis subphenotypes based on organ dysfunction trajectory.

Hewlett Packard Enterprise **January 2022 – June 2022**
Research and Development Intern *Bengaluru, India*

- Proficient in HP-UX, possessing comprehensive knowledge of its system architecture, I/O subsystems, file systems, and memory management.
- Proficient in meticulous code debugging, unraveling complex I/O flow for optimized system performance.

Projects

Campus Crib Housing Made Easy!! | *React, Django, Python* - GitHub

- Engineered an interactive web prototype utilizing Django, streamlining housing search for University of Florida students in Gainesville. This drove a 25% increase in successful housing matches.
- Created an intuitive platform through expertise in web development and user experience design, resulting in enhanced user engagement and about 90% satisfaction metrics.

GAN and VAE for Image Generation | *Python, Pytorch*

- Produced impressive images using a GAN network, achieving an FID score of 13.5 on MNIST and 52.8 on CelebA dataset.
- Spearheaded the development of a VAE network, showcasing exceptional image generation with an FID score of 16.3 on MNIST and 59.1 on CelebA dataset.

E-commerce Replica Development | *React, NodeJS, Express, MongoDB, Redux* - GitHub

- Developed a comprehensive e-commerce clone with MERN stack, achieving 90% feature parity with Flipkart's core functionalities and incorporating 100,000+ mock products.
- Reduced page load time by 40% through responsive design implementation, resulting in a 50% increase in user engagement during testing.

Twitter Engine Clone | *Erlang, HTML,CSS* - GitHub

- Engineered a robust Twitter replica in Erlang, adeptly managing thousands of users and tweets.
- Leveraged Erlang's concurrency and fault-tolerance for stable performance with 10,000+ users.

Publications

Personalized Fashion Assistant | *Publication link*

- Utilized computer vision and deep learning to develop a cutting-edge virtual try-on feature, achieving a high SSIM of 0.829 and an FID of 25.770.
- Designed a cost-efficient fit advisor using a multilayer ANN model, boasting 95% accuracy, which significantly reduced return rates and enhanced the online shopping experience for users.

Prediction of Movie Genres Based on Synopsis and Title Using BiLSTM | *Publication link*

- Leveraged advanced BiLSTM models to intuitively categorize movies by genres using titles and synopses, achieving remarkable accuracies of 95.59% (summaries), 95.53% (titles), and 95.7% (combined).

Achievements

ShellHacks Runner-Up: AI-driven NPC with Visual Awareness | *Python, OpenCV, ChatGPT LLM, Multi-threading* - GitHub

- Pioneered a team of 4, crafting an innovative AI-driven NPC for Minesweeper, clinching the runner-up spot among 40 contenders at ShellHacks.
- Seamlessly fused AI with image processing, OCR, and OpenCV, enabling the game assistant to dynamically interpret visual grids and generate 200+ strategic responses.