KASHYAP BASTOLA

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EDUCATION

M.S in Computer Science, University of Florida, Gainesville, FL Aug 2023 - Present

- **GPA:3.66**
- Relevant Coursework: Advanced Data Structure, Distributed Operating Systems, Programming and Functions, Software Engineering, Human Computer Interaction

B. Tech in Computer Science Engineering, Vellore Institute of Technology, India Jul 2019 – Apr 2023

- **GPA: 3.6**
- Relevant Coursework: Data Structures Algorithms, Object Oriented Programming, Software Engineering, Artificial Intelligence, Machine Learning, Natural Language Processing, Image Processing, Computer Vision, Human Computer Interaction, Deep Learning

EXPERIENCE

Uniaxial Software Pvt. Ltd. | Machine Learning Intern Sep 2022 – Nov 2022

- Contributed to the development of an advanced Chatbot project focused on semantic analysis, where I successfully applied Natural Language Processing pre-processing techniques in conjunction with various Machine Learning Algorithms.
- Conducted an in-depth evaluation of candidate algorithms, including Recurrent Neural Network (RNN), Naïve Bayes, and Support Vector Machines, to determine the optimal solutions for the project's objectives.

Khudra Corporation Ltd. | Machine Learning Intern Dec 2021 – Feb 2022

- Engaged with the movie theatre management system team to integrate innovative AI-driven personalized advertising solutions, showcasing adaptability and applied AI technology proficiency.
- Collaborated on devising user-centric expansion strategies by leveraging machine learning techniques, effectively accommodating client preferences.

SKILLS

Python, JavaScript, TypeScript, Java, Django, React, Angular, NodeJS, CSS, Bootstrap, MySQL, PostgreSQL, HTML, C++, Machine Learning, TensorFlow, Natural Language Processing, Deep Learning,

PROJECTS

G-events

- Developed a full-stack web application using Django for backend and react for frontend, enabling users to explore, register for, and manage tickets for university events; implemented role-based access for admins to manage event listings.
- Integrated PostgreSQL as the database to store and retrieve event and user data, designed a responsive interface with React, and implemented features like category-based event filtering, QR code ticket generation, and secure user authentication.

Car Game with 3D Audio Integration

- Developed a car driving simulation using Python and Pygame, integrating dynamic 3D audio to enhance realism through sound panning and velocity-based adjustments.
- Designed an immersive user interface, leveraging advanced audio mechanics to create a seamless, interactive gaming experience.

GatorLibrary - Library Management System

- Designed and implemented a library management system to efficiently manage book inventory, patron details, and borrowing operations, leveraging advanced data structures for optimized performance.
- Utilized Red-Black Trees for dynamic book organization and Binary Min-Heap for prioritizing and managing book reservations, showcasing strong expertise in data structure optimization for real-world applications.

New Image Generation from Text using Generative AI, Shell Hacks Hackathon

- Worked on **MICROSOFT AI Challenge** and Created a Generative AI model with Deep Convolutional GANs, training on 1,500+ flower images and corresponding text data to generate new images based on textual input.
- Built a responsive front-end interface using React to display generated images, ensuring a user-friendly experience.

Brain Computer Interface (BCI) for Eye State Detection using Tree Based Algorithm

- Performed eye state detection using tree-based machine learning algorithms, processing EEG data with bandpass filtering, Hilbert Transform, and Z-Score normalization.
- Optimized model performance through Recursive Feature Elimination and Bayesian Optimization, showcasing expertise in feature extraction and BCI technology.

Detection of Defective potato chips

- Implemented machine learning models (MobileNet, ResNet50, VGG16, and VGG19) on a dataset of 1,000+ images to classify defective and non-defective chips with high accuracy.
- Demonstrated proficiency in handling real-world datasets and utilizing advanced neural network architectures to solve practical challenges in defect detection.

CERTIFICATIONS AND ACHIVEMENTS

- **Awarded Achievement award Scholarship** for outstanding students from University of Florida Aug 2023
- **Industrial Training on Machine Learning** from Finland Labs Jun 2022
- **Web Applications and Technologies using Django** from University of Michigan Mar 2022
- **Certificate of completion** for Data Structures and Algorithms with Python Oct 2021