SHREYA UMESH NAIDU

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A passionate Computer Science graduate with strong foundations in Python, Java, and SQL, and hands-on experience in machine learning, computer vision, and cloud platforms like Microsoft Azure. Developed real-time AI models, optimized supply chain workflows, and built intelligent systems for gesture recognition and predictive analytics. Certified in Machine Learning and AWS Cloud Foundations, with a drive to apply ML solutions to real-world challenges

EDUCATION

University of Texas at Arlington, Texas **Aug 2024 – Present**
Master of Science in Computer Science and Engineering, GPA: 3.665/4

GSSS Institute of Engineering and Technology for Women (VTU), Mysuru, India **Sept 2020 – Aug 2024**
Bachelor of Engineering in Computer Science and Engineering, Cumulative GPA: 8.48/10

SKILLS

Programming and Problem-Solving Skills: Data Structures and Algorithms |LLM |Operating System | Multi-Threading |Object Oriented Design | Computer Architecture | AI/ML| Generative AI | Power BI | Machine Learning | Risk Management| Data Analysis | Performance Metrics Reporting
Desktop Support: Hardware/software troubleshooting, Windows 10, macOS, Microsoft Office 365
Language & Tools: C | Python | SQL | HTML | CSS | Java | Perl | MS Office | JavaScript | PHP | Microsoft Excel | SQL
Cloud and Web Development Technologies: Microsoft Azure |WordPress | Software Development | Testing
Leadership Skills: Problem-Solving |Critical Thinking | Interpersonal Skills |Written Communication |Detail Oriented

EXPERIENCE

Honeywell Technology Solution, Intern-Bachelors Software Engineer, Bengaluru, India **Feb 2024 – July 2024**

- **Aim:** To optimize inventory management by identifying fast-moving and slow-moving products at various locations and redistributing them based on demand. The objective was to enhance operational efficiency through better stock allocation strategies using machine learning.
- **Focus:** Primarily concentrated on leveraging programming techniques for inventory optimization, with a specific emphasis on IC/MCU interchangeability to address supply chain challenges.
- **Tools & Techniques:** Optimized inventory management by leveraging SciPy for efficient modeling and problem-solving, implementing fuzzy string-matching algorithms for identifying similar product parameters, and utilizing the multiprocessing library to accelerate computational analysis and streamline item interchangeability.
- **Output**: Developed a robust inventory optimization system that identified product movement trends and automated redistribution strategies, ensuring improved demand fulfilment and minimizing excess inventory. Enhanced skills in optimization algorithms, parallel processing, and data-driven decision-making.

Varcon's Technologies Pvt Ltd, UI/UX Intern **Aug 2023– Sept 2023**

- **Aim:** To develop user-centric designs that enhance usability and improve the overall experience of digital products. The objective is to combine visual design and user psychology to deliver a seamless interaction flow across devices.
- **Focus:** Primarily focused on building both intuitive interfaces (UI) and logical, research-based user journeys (UX) to create an aesthetically pleasing and functional design solution. Emphasis on accessibility, performance, and user feedback.
- **Tools:** Utilized Figma, Adobe XD, and Sketch for wireframing, prototyping, and design mockups. Conducted usability testing to validate design choices and iterated based on insights.
- **Output:** Delivered an efficient and user-friendly design system for a web or mobile application, ensuring responsiveness, accessibility, and overall user satisfaction. Enhanced understanding of design principles, usability testing, and iterative improvements to refine user experiences.

ACADEMIC PROJECTS

Gut Microbiome Analysis: Python, Pandas, Seaborn, PCA, Bioinformatics
Analyzed metagenomic abundance data to explore microbial diversity and identify dominant species **using unsupervised learning; applied 16S rRNA** insights to uncover patterns linked to health conditions like ASD.

Real-Time Hand Gesture Recognition System: Python, MediaPipe, OpenCV, TensorFlow, LSTM
Developed a real-time ASL (A–J) recognition system using webcam input and hand landmark detection with MediaPipe.
Trained an LSTM-based model achieving 93.3% validation accuracy, with a full pipeline from data collection to inference.
Designed for robust performance across lighting conditions, enabling touchless interaction in HCI and accessibility use cases.

Breast Cancer Histopathology Classification: Python, TensorFlow, Keras, CNN
Built and trained a CNN model to classify histopathology images as **benign or malignant** with ~77% accuracy; implemented early stopping and prediction pipeline for real-world medical image analysis

Task Management System: Flask, Java, Selenium
Developed a collaborative task management system featuring real-time Kanban boards, role-based access control, and task notifications. Integrated commenting, dashboards, and automated testing using Selenium to enhance productivity and streamline project workflows

Hospital Data Analysis Dashboard : *Python, Pandas, Plotly, Preswald, Google Drive API*
Developed an **interactive data visualization dashboard** using **Preswald, Pandas, and Plotly** to analyze hospital ratings and emergency services across the USA with dynamic filtering. Optimized deployment by integrating **Google Drive for dataset retrieval**, improving accessibility and performance. Applied **risk management** principles to ensure accurate data representation and structured reporting.

IT Performance & Inventory Optimization | Power BI, Excel
Designed an **interactive data visualization dashboard** to analyze IT performance metrics, using **Power BI and Excel**. At **Honeywell**, analyzed microcontroller inventory to identify reusable components, optimizing standardization and efficiency. Automated **data collection, reporting, and visualization**, presenting insights via **Power BI dashboards and PPTs** to enhance resource utilization.

Audit & Project Progress Tracker| Excel (Gantt Chart), Slack, Kanban
Developed a tracking system using **Excel (Gantt Chart)** to monitor audit findings, remediation actions, and deadlines. Utilized **Slack** and **Kanban boards** for collaboration, progress tracking, and risk management. Standardized documentation processes with templates for enhanced transparency and efficiency.

Human Age and Gender Estimation: Python, Deep Learning (CNNs, Haar Cascades)
Description: Built a real-time system using convolutional neural networks **(CNNs) and Haar cascade classifiers** to estimate human age and gender. This system has potential applications in surveillance, targeted marketing, and demographic analytics.

CERTIFICATIONS

- Introduction to Python on Infosys Springboard
- Machine learning using python – IBM
- Data Science 101 – IBM
- AWS Academy Graduate – AWS Academy Cloud Foundation
- Participant at IBM Skill Build Certification Program on Job readiness

PUBLICATIONS

- Human age and gender estimation from images in real time applications (IARJSET)