BHAVESH KURELLA

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Education

Masters, Data Analytics Engineering — Jan 2023 – Dec 2024
George Mason University — GPA: 3.93

Masters, Software Engineering (Integrated) — Aug 2017 – Jul 2022
Vellore Institute of Technology — GPA: 8.57

Skills

Programming Languages: Python, Java, JavaScript, C, C++, Scala, Golang
Cloud Services: AWS EC2, S3,RDS,Lambda, CloudFormation Compute Engine, Kubernetes Engine (GKE),Cloud Functions,
Databases: MySQL, PostgreSQL, Oracle Database, Microsoft SQL Server, MongoDB, DynamoDB, Amazon Aurora, Google Cloud
Software Tools: GitHub, Visual Studio Code, Eclipse, Anaconda, Command Line Interface (CLI), Microsoft Office Suite
Web Technologies: HTML, CSS, JavaScript, React, Angular, Node.js, RESTful APIs, jQuery, Django, Flask, PHP, MongoDB.
Core Competencies: Data Structures and Algorithms, Web Development, Agile Methodologies, Software Development Life Cycle Object-Oriented Programming, Unit testing, Operating Systems
Operating Systems: Windows, Linux, Unix

Work Experience

Data Analyst-Precise Software Solutions — **Aug 2024 - Jan 2025**

- Led the development of an FDA Product Label Recognition system, enhancing automation and reducing manual inspection time by 40%.
- Implemented OCR and machine learning models, improving product label recognition accuracy by 30%.
- Utilized Azure OpenAI services, Retrieval-Augmented Generation (RAG), and Python to enhance data extraction and analysis speed by 50%.
- Visualized project performance metrics via Power BI dashboards, enabling stakeholders to pinpoint three biggest causes of delays in sprints and devise data-driven resolutions.
- Applied Agile and Scrum methodologies for sprint planning and issue tracking, ensuring 100% on-time deliverables.

R&D-Stryker Cooperation — **Aug 2021 - Jan 2023**

- Designed a proof-of-concept Microsoft PowerApps application for streamlining the change request process, incorporating user feedback from 10+ engineers and improving efficiency of the process.
- Product Life Cycle Management: The process of disposing of the UPNs which are dead in the system and need to be obsolete, carried out using PLM software, leading to the removal of around 400 UPNs from the system via creating Change Notice.
- Products Scan Power BI Tool: In this project a client required to check the data using respective filters so using Power BI a delightful tool which helps in creating dashboards very user friendly and made multiple reports which made that client easy to search and give feedback of that data very insightful to the stakeholders which saves delay in shipment ordering by 95%. Launched a PowerApps-based inventory management system, replacing a manual log, which streamlined product tracking for 50+ lab members and cut down on time spent locating materials by an average of 15 minutes per search.

Academic Projects

Twitter Sentiment Analysis

- Devised a Twitter sentiment analysis application that collects real-time tweets using the Twitter API. Processed these tweets with natural language processing (NLP) techniques to determine sentiment (positive, negative, neutral). Used Python with Flask to create the backend, which included endpoints for fetching tweets and their sentiment scores.
- Built a responsive web application with React for the frontend, allowing users to input keywords and view sentiment trends through interactive visualizations. Utilized MongoDB to store tweet data, sentiment, scores, enabling efficient data management.

Online Learning Management System

- Built an online learning management system (LMS) where instructors can create courses, upload content, and manage student enrollments. The backend was developed using Django and REST Framework, providing secure API endpoints for course and user management.
- Utilized PostgreSQL for the database to store user data, course information, and enrollment records. The frontend was designed with Angular, featuring a user-friendly interface that allows students to browse courses, track progress, and interact with instructors through a messaging system.

Web design for MSCS Academic Program in Web Data Management

- Implemented a comprehensive, user-friendly portal for students, professors, and administrators in the Master's in Computer Science program; improved user engagement and reduced administrative workload by 20%. Implemented secure login functionality and role-based access control for personalized user experiences
- Created and managed databases to support the portal's academic functionalities, including course registration, assignment submissions, and communication tools. This database infrastructure enhanced data integrity and accessibility, further improving system performance.

Application of PCA and ICA on face recognition system

- Developed a full-stack face recognition application utilizing Principal Component Analysis (PCA) for feature extraction and Independent Component Analysis (ICA) for enhancing recognition accuracy.
- Constructed a responsive frontend using React, allowing users to upload images and receive real-time recognition results. Integrated data visualization techniques to display recognition confidence levels.

Certifications

- PowerBI Data Analytics Certified Data Scientist (CDS)