YASH NITIN SONI

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EDUCATION

University of Maryland, Baltimore County January 2024 - Present
Master's in Information Systems GPA – 3.83/4.0
Coursework: Management Information Systems, Data mining, Data Analysis for Cybersecurity, Decision making support systems, Structured System Analysis and Design, Advance Database Projects, Statistical Learning for Data Analysis, Interfaces For Info. Visualization & Retrieval.

Vishwakarma Institute of Technology August 2018 – July 2022
Bachelors in Computer Science GPA – 3.4/4.0

SKILLS

- Programming Languages: C++, Python, Kotlin, SQL, JavaScript
- Web & Backend: Flask, FastAPI, REST APIs, React.js, HTML, CSS, Bootstrap
- Databases: MySQL, PostgreSQL, SQLite, MongoDB, Snowflake, Firebase
- Cloud & DevOps: AWS (EC2, S3, Lambda, RDS, SageMaker), Docker, GitHub Actions
- Data Analytics & Visualization: Tableau, Power BI, Pandas, NumPy, Matplotlib
- Version Control: GIT, GitHub
- Certificates: AWS Certified Cloud Practitioner, HackerRank SQL(Advanced)

WORK EXPERIENCE

Associate Engineer – Product Developer, *Harman Connected Services, Pune, India* March 2022 – June 2023

- Extracted and processed structured data from APIs: Retrieved and transformed JSON data from REST APIs using Retrofit and Python, ensuring seamless integration into backend databases for analytics and reporting.
- Managed and optimized database performance: Worked with MySQL and Firebase to store, retrieve, and optimize structured data, reducing query execution time by 30% through indexing and optimization techniques.
- Automated data workflows: Built 10+ Python scripts to clean and validate incoming data, ensuring 100% structured dataset accuracy for business intelligence dashboards.
- Implemented data validation procedures: Used SQL constraints and Python-based anomaly detection, reducing data errors in reporting pipelines by 40% and enhancing analytical accuracy.
- Optimized data pipelines by 25% through collaboration with 5+ analysts and engineers, improving efficiency, scalability, automation, data quality, and processing speed for better insights.

PROJECTS

AI Nutrition Analyzer (Python, TensorFlow, Keras, FastAPI, Streamlit)

- Designed an AI-powered food recognition system that classifies food items from images and provides real-time nutritional analysis (calories, protein, fat, and carbohydrates) achieving 90%+ accuracy.
- Trained a deep learning model on the Food-101 dataset using TensorFlow & Keras, classifying 101 food categories and 101,000 images.
- Built a FastAPI backend to handle image processing, run the AI model, and return nutritional data efficiently.
- Developed a Streamlit-based frontend for easy image uploads and real-time food analysis.

Customer Churn Prediction (Python, Scikit-learn, Pandas, NumPy, Matplotlib, Joblib)

- Constructed an 81.76% accurate machine learning model using Logistic Regression, Decision Tree, Random Forest, and SVM to predict telecom customer churn.
- Engineered features and handled data preprocessing, identifying key churn factors like contract type, monthly charges, and tenure, improving the F1-score by 12%.
- Processed and analyzed 7,000+ customer records, applying data cleaning, encoding, and feature scaling for better model efficiency.
- Serialized trained models for deployment, enabling automated predictions and customer retention insights.

Online Proctor System (Python, OpenCV, TensorFlow, YOLOv4)

- Created an AI-based proctoring system using face, eye, mouth, and mobile phone detection, achieving 90% detection accuracy on 3 hours of recorded exam footage.
- Integrated facial landmark detection and YOLOv4 object recognition, which allowed the system to process video streams at 30 frames per second (FPS).
- Applied computer vision techniques to track eye gaze, mouth movement, and device usage in real time.