PRATISHTHA SONI

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SUMMARY

- Result oriented developer with 3 years of experience as Software Developer and 2 years of Masters in Computer Science.
- Published Paper in *AIMHC-IEEE* and *EC BIOS-IEEE* in the field of ML and AI focused in the HealthCare Department in 2024.
- Published *Agricultural Crop Yield Prediction Using Artificial Intelligence and Satellite Imagery* in Eurasian Journal of Analytical Chemistry 2019.
- Attained Spot Award for the *Automation of Data Extraction* in L&T Technology Services Limited in 2021.
- Currently serving as an Organizer at Google Developer Group (GDG) Fullerton Chapters.
- Looking for opportunities as Developer, ML Engineer, Data Scientist, Data Analyst.

SKILLS

Languages : Python**,** C++, SQL

Tools & IDE's : Microsoft SQL Server, MongoDb, JIRA, Github, Git

Software Development Methodologies : Waterfall, Agile (Scrum)

Cloud Services : Amazon Web Services (AWS), Azure

Web Technology : Flask, Kafka, Api Development, Docker, Postman

Operating Systems : Linux, Windows

PROFESSIONAL EXPERIENCE

Research Associate **March 2023 - May 2024**

California State University Fullerton, CA

- A collaborative project that develops AI-based image recognition models specifically designed for the supportive housing sector, with a focus on social services and presented posters and paper in USC and IEEE AIMHC 2024.
- Predicted food images by implementing Computer Vision, Machine Learning and Deep Learning models after collecting and storing images using Azure Blob Storage and OpenCV within TensorFlow, Keras, and PyTorch frameworks.
- Explored diffusion models and multimodal frameworks, leveraging transformers for LLMs, text-to-text and image generation, to enhance image recognition capabilities.

Teaching Associate **January 2023 - May 2024**

California State University Fullerton, CA

- Instructed undergraduate students in Python and advanced C++, communicating concepts of Data Structures.

Senior Python Developer **February 2022 - Aug 2022**

V**alueLabs, Hyderabad, India**

- Enhanced scalability and availability by developing and testing REST APIs for client website integration, optimizing cloud operations, resulting in 50% cost reduction and improved process debug time.
- Leveraged cloud-native services such as AWS Lambda*,* Amazon EC2 to build resilient applications, leading to a 30% enhancement.
- Improved performance and ensured the smooth transmission of live data across diverse Kafka topics by troubleshooting and deploying producer and consumer scripts, which led to managing over 1000 requests and resolving issues.

Software Engineer **June 2019 - February 2022**

L&T Technology Services, Vadodara, India

- Identified patterns from unstructured documents and extracted features according to clients requirements by leveraging Natural Language Processing (NLP) based platforms, which led to 70% accuracy and improved the quality and reliability of the data, saving 25 hours of manual work per week.
- Ensured continuous data integration and availability for analytics teams by configuring and scheduling automated data workflows in Azure Data Factory, leading to improved data accessibility and reliability.
- Automated web scraping of selected features applied statistical analysis with 80% accuracy from websites by writing backend scripts using Selenium.
- Executed tabular data extraction and export to a predefined report format by executing data integration scripts using SSIS to read .json and .xlsx files, enhancing scalability and reducing manual data entry processes by 40%.
- Revealed meaningful patterns in the dataset by utilizing Power BI and SQL queries for conducting data analysis using SQL Server, leading to enhanced insights for decision-making.
- Incorporated agile ceremonies (SDLC) to address clients requirements, designing, coding, testing ontologies and knowledge graphs with Python scripts for viewing relationships among 40+ excel sheets.

ACADEMIC PROJECTS

NYC Automated Traffic Volume Counts *(pandas, hadoop, java, spark, pyspark, SQL, HDFS)*

- Utilized big data tools to analyze diverse data trends through Spark queries on GCP within the Hadoop framework, leading to improved business intelligence and scalable data insights.

Crop Yield Prediction using Artificial Intelligence and Satellite Imagery *(opencv, scikit-image, tensorflow, pytorch)*

- Implemented a rule-based system to forecast crop yield prediction from a pool of (Geographic Information System) GIS data by applying ANN algorithm and CNN algorithm with 89% accuracy.

EDUCATION

California State University Fullerton, USA - *Master of Science, Computer Science* **August 2022 - May 2024**

SRM Institute of Science and Technology, India - *Bachelor of Technology, Computer Science and Engineering* **July 2015 - May 2019**