

# PRATISHTHA SONI

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## EDUCATION

### California State University, Fullerton, California

Master of Science, Computer Science 3.7 CGPA

August 2022 - May 2024

### SRM Institute of Science and Technology, Chennai, India

Bachelor of Technology, Computer Science and Engineering 7.8 CGPA

July 2015 - May 2019

## TECHNICAL SKILLS

- Proficient Skills - **Python, C++, Sql**, Api Development, ETL Data Pipeline, Kafka, REST, Flask
- Skills - Java, Hadoop, Spark, Pytorch, Machine Learning
- Cloud Services - Azure Functions, Azure Data Factory, Azure App Service, Azure Web Jobs, Azure Storage, AWS Lambda, AWS EC2, AWS SQS, AWS S3, AWS EMR
- Tools & IDEs - PowerBi, Postman, SQL Server, Gerrit, Git, Docker, MongoDB, Protege, Linux, MS Excel

## EXPERIENCE

### California State University, Fullerton

Research Associate

Fullerton CA

March 2023 - Present

- Developing and implementing Machine Learning Models after collecting images and leveraging pre-trained models and data analysis, using VGG16 architecture and opencv within Tensorflow and Keras frameworks to accurately predict food images.

### California State University, Fullerton

Teaching Associate

Fullerton CA

January 2023 - Present

- Teaching Python and C++ to undergraduates with expertise in communication skills and curriculum design.

### ValueLabs

India

Senior Python Developer

February 2022 - August 2022

- Developed APIs for integrating with client's website to optimize cloud operations, resulting in **50% savings** in cloud costs.
- Engineered and implemented 10+ new features and collaborated effectively with cross-functional teams to enhance user engagement on live-streaming platform.
- Incorporated **Agile methodology** using Jira and Leveraged cloud-native services such as AWS Lambda, Amazon EC2, and Amazon RDS to build resilient applications, leading to a **30% enhancement**.
- Designed Kafka producer and consumer scripts to send live stream data into various Kafka topics for handling **1000+ requests**.

### L&T Technology Services Limited

India

Software Engineer

May 2019 - February 2022

- Developed automation scripts by leveraging existing organizational-based knowledge and NLP-based platform to accomplish automation in data extraction from documents to achieve **70% of accuracy** and saving **25 hours of manual work per week**.
- Extensively used ETL pipelines to transfer data from various data sources into Data Warehouses for reporting and analytic purposes.
- Developed and maintained a scalable Data Lake Architecture to store **50m+** structured and unstructured records streaming every week.
- Comprehended the user and system requirements and crafted ontologies and knowledge graphs with python for viewing relationships among **40+ excel sheets** in Protégé.
- Effectively managed and maintained mission-critical systems, leveraging technologies such as AWS for cloud infrastructure, Kubernetes for container orchestration, and Splunk for log monitoring, ensuring seamless operation and minimal downtime.

## PROJECTS

### NYC Automated Traffic Volume Counts

- Examined data and its diverse trends by employing Spark queries on Google Dataproc within the Hadoop framework, utilizing extensive datasets sourced from Kaggle.

### Crop Yield Prediction using Artificial Intelligence and Satellite Imagery

- Implemented a rule-based system to forecast crop yield production from a pool of collected data by applying Artificial Neural Network algorithm and Convolutional Neural Network algorithm.
- Demonstrated a remarkable **89% accuracy** in predicting crop yields using CNN for regions lacking sufficient data.

## PUBLICATIONS & CERTIFICATIONS

- [Agricultural Crop Yield Prediction Using Artificial Intelligence and Satellite Imagery](#) on Eurasian Journal of Analytical Chemistry. 2023
- Completed **Deep Learning: Image Recognition** and **Sql Essential Training** Courses from **LinkedIn**. 2023
- Attained **Spot Award** for **Automation of Data Extraction** in L&T Technology Services Limited 2022
- Earned certifications in Usable Security, Python Data Structures, and Algorithmic Toolbox from Coursera. 2017
- Network Management certification course from **IIT Kharagpur, India**. 2017

## LEADERSHIP EXPERIENCE

- **Organizer, Google Developer Group (GDG) Fullerton Chapter** March 2023 - Present  
GDG is a community supported by Google. I lead the planning and execution of events like networking, workshops, and hackathons.