

# SURAJ S BILGI

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## EDUCATION

### Stevens Institute of Technology

Master of Science in Applied Artificial Intelligence

### Acharya Institute of Technology

Bachelor in Electronics & Communication Engineering

Hoboken, NJ

Expected - December 2024

Bangalore, India

August 2019

## SKILLS

**Programming Language:** Python, HTML, CSS, DSA | **Data Engineering:** Kafka, Snowflake, Git, Docker, Airflow, PySpark

**BigData Frameworks:** Cassandra, Hadoop, Spark | **Machine Learning:** Tensorflow, Keras, PyTorch | **GUI:** PyQt5, Tkinter

**Databases:** MySQL, MSSQL, MongoDB | **Deep Learning** Computer Vision, NLP, YoloV4, ANN & CNN | **Cloud:** AWS & Azure

## WORK EXPERIENCE

### Computer Vision Developer, Safepro AI Video Research Labs

April 2023 - August 2023

- Contributed to a state government project as a team lead for creating an ITMS, which enhanced rider safety by detecting violations like no helmets and triple riding, while also facilitating large-scale monitoring for the traffic police.

#### Project: Intelligent Traffic Management System(ITMS)

- Developed and implemented a Docker server to execute advanced analytics for the ITMS, resulting in enhanced monitoring capabilities for traffic enforcement and increased efficiency of the department by 100% and by reducing violations in the locality.
- Incorporated MongoDB for data management, establishing seamless connectivity with the GUI application via APIs, and seamlessly integrated with the dashboard.
- Launched an analytics server on the client system using Docker and implemented on edge devices.

### Data Scientist, Ineuron Intelligence Pvt Ltd

July 2022 - April 2023

- Developed comprehensive industry-level projects for students, including small-scale projects, research on specific topics, and coordination of tech events like Hackathons.

#### Project: Face Swap Application :

- Created a face swap application and implemented on Docker, employed cloud services, and set up EC2 on AWS for deployment.
- Developed face masks, conducted image rendering, and deployed the project using Flask while maintaining a modular coding approach.

#### Project: Sensor Fault Detection

- Conducted experimentation to evaluate and select the most optimal model from a pool of ten alternative models.
- Implemented robust training pipelines for CI-CD by harnessing the power of Apache Airflow and MLflow.
- Managed data in MongoDB and facilitated real-time streaming by leveraging Kafka.

### Machine Learning Engineer, Resolute AI Software Private Limited

January 2021 – June 2022

- Presented multiple POCs to demonstrate the company's capabilities in addressing industrial-level problem statements.
- Conducted on-site client visits, analyzed problem statements, gathered data, and converted POC projects into potential client engagements.

#### Project: Camera-Based Glass Bottle Counter

- Developed object detection models using YOLOv4 to count bottles with industry-grade cameras and reduced wastages by 50% through upgraded bottle counting accuracy. Contributed as a Deployment head at the client location.
- Created a user-friendly application using Tkinter for easy interaction and achieved a significant increase in warehouse efficiency.

#### Project: Occupancy and Activity Recognition at a Pharma company

- Created a backend service for real-time occupancy and activity analytics in all rooms.
- Designed a user-friendly dashboard to display analytics alongside live camera feeds.
- Enhanced data visualization and monitoring capabilities for revised decision-making.

#### Project: Industry Automation solution at Textile Manufactures using AI

- Created an application using PyQt5 for fabric counting and integrated it with batching machines, enabling speed control.
- Remarkably optimized workplace efficiency by an impressive 400% and employed deployment tools such as thin clients.
- Implemented the system on powerful Linux machines with GPU support for enhanced performance.

### Business Development Executive, Champions InfoMetrics Pvt Ltd

August 2019 – July 2020

- Drove Business via outbound prospecting, cold calling & Email Campaigning to win strategic accounts.
- Engaged with Prospects and Qualify inbound leads and turned into pipeline opportunities.

### Research Intern, Old Dominion University, Virginia, USA

July 2018 - August 2018

- Developed a prototype to convert words into speech for the visually impaired using Matlab and OCR libraries.
- Researched on early aggression detection for Alzheimer's and Dementia Patients.
- Worked on building a Chatbot using Dialog Flow for a real estate company named Homes.com