

SUBHASH BANGALORE SATHEESHA

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SKILLS

- **Programming Languages & Frameworks:** Python, JavaScript (ES6+), TypeScript, SQL, Flask, Django
- **Web & API Development:** HTML, CSS, REST APIs, GraphQL, TensorFlow, PyTorch, Keras, MERN, Express, React, Node
- **Cloud & DevOps:** AWS, GCP, Docker, Kubernetes, Jenkins, Terraform, CI/CD, Git, Microservices
- **Databases & Systems:** MySQL, PostgreSQL, MongoDB, Redis, Firebase, Linux, Distributed Systems, Caching, Message Queues

WORK EXPERIENCE

Artpark: Application Developer

01/2024 – 06/2024

- Led the development of advanced software solutions for the precise calibration and analysis of IMU and INS sensors, enhancing sensor data accuracy and reliability by 40%, crucial for high-stakes applications, built on **PyQT5** platform.
- Designed and implemented robust, custom drivers (GPS, Bluetooth, Wi-Fi & Camera) for seamless integration with IMU and INS sensors, improving data communication efficiency across diverse systems by 45%.

Drozone: Cloud Engineer

06/2023 – 12/2023

- Led the development and management of 'AgriOM' and 'Drozone', two innovative agricultural technology platforms, resulting in a 50% improvement in deployment efficiency through advanced DevOps and automation strategies.
- Architected and implemented enhanced security protocols and automated processes, reducing system downtime by 40% and ensuring the platforms' scalability and resilience.
- Utilized my expertise in integrating the Django REST framework and deploying Google Cloud Platform (**GCP**) for the development of a robust cloud-based solution. Employed **Docker** and **Kubernetes** for efficient microservice-based architectures, coupled with **Jenkins** for seamless build and deployment automation. These efforts significantly enhanced infrastructure efficiency and scalability.

IISc (Aerospace Dept): Research Assistant

01/2023 – 12/2023

- Directed the 'AgriOM' startup research project, developing a comprehensive platform that boosted farm yield prediction accuracy by 60%, while also enhancing weed mapping and crop health monitoring capabilities.
- Engineered an optimized pipeline for **multi-spectral** UAV image processing using **YOLO v5** and **Mask-R-CNN**, reducing analysis time by 45% and significantly increasing output accuracy.
- Devised and implemented Non-Maximum Suppression techniques based on the IoU principle, effectively addressing the 20% overlap issue in large-scale farm image analysis, improving overall processing efficiency.

Krushaka Drones: Software Engineering Intern

09/2022 – 01/2023

- Utilized Python, **CNN**, **flask** and **Django** for crop identification and GPS mapping using drone imagery.
- Designed a GPS-based algorithm for systematic drone path planning, optimizing agricultural monitoring precision.

PROJECT

ChadStock:

08/2024

- Developed ChadStock, a comprehensive stock analysis platform for the Indian stock market, offering insights into stocks, equities, and futures based on mathematical and AI-driven predictions.
- Integrated trading APIs from various platforms, enabling seamless execution of trades directly within ChadStock, enhancing user experience by reducing the need to switch between platforms and enabled real-time decision-making by providing actionable insights and tools, allowing users to capitalize on market conditions quickly and efficiently.

Nayan Nirikshan - Violence Detection Using Surveillance Camera:

01/2023

- An AI-driven system using computer vision and machine learning for real-time violent activity detection, which received a 10,000 Rupee grant from KSCST for its public safety significance. The project integrates Yolo V3, **OpenCV**, Movenet Lightning, and LSTM technologies.

BIOFLEX - Industrial Database Management System:

07/2021

- Developed BioFlex, a Python and PyQt-based solution for local pharmacies, integrating inventory management, employee supervision, and billing processes to enhance operational efficiency.
- Leveraged **AWS** services for secure data management, demonstrating strong software engineering skills and addressing specific challenges within the pharmacy industry.

PAPER PUBLICATIONS

- Efficient Patch-Wise Crop Detection Algorithm for UAV-Generated Orthomosaic || DOI: [10.1007/978-981-99-8684-2_14](https://doi.org/10.1007/978-981-99-8684-2_14)
- Bowling Action Recognition Using Computer Vision || DOI: [10.1109/IITCEE59897.2024.10467949](https://doi.org/10.1109/IITCEE59897.2024.10467949)
- NAYAN NIRIKSHAN - Violence Detection Using Surveillance Camera || DOI: [10.55041/IJSREM18844](https://doi.org/10.55041/IJSREM18844)

EDUCATION

University of California-Riverside || Riverside, CA

Sept 2024 – Dec 2025

M.S. Computer Engineering

Visveswaraya Technological University || Bangalore, India

Sept 2019 – July 2023

B.E. Computer Science & Engineering – 3.7 GPA