

# ABHIKALP SRIVASTAVA

Bangalore, India

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## SUMMARY

- **Software Engineer** proficient in Machine Learning/Deep Learning, Generative AI, Agentic AI, LLM integration, MLOps; solid foundation in Data Structures & Algorithms (C++); BigQuery ML & Flask certified.
- Strong **communicator** and **problem solver** with **cross-functional collaboration** and a solution-oriented mindset.

## EXPERIENCE

### NXP India

Jan 2025 - Present

Technical Intern

Bangalore, India

- Developed Python **automation** scripts, improving workflow efficiency by 30%, and collaborated with teams to integrate proprietary systems with external **APIs**.
- Assisted in designing and delivering **AI/ML training** globally, enabling effective knowledge transfer across teams.

### NXP India

May 2024 - Jul 2024

Technical Intern

Bangalore, India

- Engineered automated **multi-label NLP classification system** using Python and Scikit-Learn, achieving 78% accuracy, resulting in a 60% reduction in manual processing time.
- Constructed end-to-end text pipelines and packaged the top model (LogReg/RF/SVM) with 92% recall.

### MyParticipants

Dec 2023 - Feb 2024

Software Development Intern

Remote

- Built a robust **speech analytics platform** using **Whisper API** and **PyAnnote-Audio clustering**, achieving 15% reduction in Word Error Rate (WER) and improving speaker diarization accuracy by 22% on 500+ hours of audio.
- Architected scalable **GCP infrastructure**(Storage, App Engine) with monitoring to cut cloud costs by 35%.

## TECHNICAL SKILLS

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

**Machine Learning & AI:** TensorFlow, PyTorch, Scikit-Learn, NLP, Computer Vision, Deep Learning, MLOps, LLMs

**Web & API Development:** Flask, RESTful APIs, Web Services

**Cloud & DevOps:** Google Cloud Platform, BigQuery, Linux

**System Design & Architecture:** Low-Level Design (LLD), High-Level Design (HLD), Design Patterns

**Computer Science Fundamentals:** Data Structures and Algorithms (DSA), Operating Systems (OS), Database Management Systems (DBMS), Computer Networks, Object-Oriented Programming (OOP), Software Engineering

## PROJECTS

**CropStop (AgroTech Platform)** | Python, TensorFlow, Flask, GCP | Project Link | Video Link Feb 2023 - Mar 2023

- Implemented an **agricultural analytics platform** using **Flask**, integrating **CNN** (98% accuracy) and **Random Forest** (95%) for **crop disease detection** and recommendations, deployed on **GCP** with 100+ daily users.
- Built a crop-price forecasting model (96% accuracy), integrating **real-time agricultural news** for **decision-making**.

**AI Self-Driving Car** | Python, PyTorch, Deep Q-Learning | Project Link

May 2023 - Jun 2023

- Trained a **Deep Q-Network agent** using **PyTorch** with fully connected layers and **sensor fusion**, achieving 92% collision-free navigation across urban maps with dynamic destination switching.
- Applied **experience replay**, **prioritized sampling**, and **reward shaping** to accelerate policy training convergence.

## RESEARCH PROJECTS

**Secure Apple Leaf Disease Detection** | Python, TensorFlow, Keras | Paper Link

May 2023 - Feb 2024

- Benchmarked 5 CNN architectures (**VGG16/19**, **ResNet50/101**, **MobileNetV2**), developing a hybrid model through late fusion of **ResNet50** and **MobileNetV2**, achieving 92.48% accuracy, 3.2% improvement over baseline models.
- Enhanced preprocessing with data augmentation and normalization, improving model generalization.

## REWARDS AND RECOGNITION

- Awarded **NXP Q2'25 Outstanding Teamwork Award** for exceptional cross-functional project delivery.
- Received **NXP Q3'24 Outstanding Collaboration Award** for automation efforts saving 200+ engineering hours.
- Achieved **Top 3 Finalist** at HackFest'23 ML Hackathon among 100+ teams for innovative AI solution.
- Presented IEEE-published research at the **ESIC 2024 International Conference**.

## EDUCATION

**International Institute of Information Technology Bhubaneswar**

Dec 2021 - Jul 2025

Bachelor of Technology (B.Tech) in **Computer Science and Engineering** (CGPA of **9.27/10.0**)

Bhubaneswar, India

## PROFILE LINKS

GitHub

LeetCode

Kaggle

OpenGenus