# Abhinav Saluja

Bengaluru, Karnataka

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CAREER OBJECTIVE github.com/abhinavsaluja2004

Aspiring software engineer skilled in full-stack development, cloud, and computer vision, eager to build scalable applications and contribute to impactful projects.

#### **EDUCATION**

## •Bachelor of Technology in Computer Science Engineering

Amrita School of Computing, Bengaluru, Karnataka

•High School Diploma (CBSE)

Blue Bells Model School, Gurugram, Haryana

•Higher Secondary (CBSE)

Blue Bells Model School, Gurugram, Haryana

WORK EXPERIENCE

## •Research Intern - Road Infrastructure Detection under Blowing Snow Conditions

May 2025 - July 2025

2022 - Present

Percentage: 90.4%

Percentage: 96.5%

CGPA: 9.41

2022

2020

Amrita Vishwa Vidyapeetham, Bengaluru & University of Wyoming

- Worked on annotating a new road infrastructure dataset and applying computer vision techniques for ADAS in challenging blowing snow conditions.
- Achieved improved detection and tracking of road infrastructure by fine-tuning SAM 2.1 on the custom annotated dataset.
- Gained expertise in Computer Vision, Deep Learning model fine-tuning, and dataset annotation using Python and PyTorch, strengthening skills in deep learning and research workflows.

#### PROJECTS

# •RootWise: Intelligent Plant Disease Detection App

Feb 2025 - Apr 2025

Amrita Vishwa Vidyapeetham, Bengaluru

- Led a 4-member team to build a cloud-hosted, mobile-first app achieving 99.04% accuracy in real-time plant disease detection using EfficientNet and field datasets.
- Implemented a recommendation module that provides care and treatment suggestions for detected plant diseases.
- Deployed real-time inference with a Java Spring Boot backend and MongoDB for authentication, image storage, and history tracking.
- Tech Stack: Node.js, React Native, Java, Spring Boot, TensorFlow, MongoDB, SQL, Python

#### Automated Multilingual Video Translation Framework

Oct 2024 - Nov 2024

Amrita Vishwa Vidyapeetham, Bengaluru

- Developed an AI pipeline to translate and dub videos in 15+ languages using Whisper, NLLB, and gTTS with 98% alignment accuracy.
- Integrated speech segmentation, real-time sync, and scalable workflows for accessibility.
- Tech Stack: Python, Whisper, NLLB, gTTS  $\,$

#### •MARS Library Management System

Dec 2023 - Jan 2024

 $Amrita\ Vishwa\ Vidyapeetham,\ Bengaluru$ 

- Built a secure library management system for 300+ users with REST APIs in Spring Boot and React frontend.
- Implemented email-based verification and login, reducing book search and check-in times by 40%.
- Tech Stack: Spring Boot, Microservices, Java, React, MySQL

### CERTIFICATES

AWS Cloud

#### Deep Learning for Computer Vision (Elite)

December 2024

March 2025

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C++

Frameworks: Spring Boot, React

Cloud/Build Tools: AWS Cloud, Git, MySQL, MongoDB

Development Areas: Full-Stack Development, Mobile Applications, Data Science, Computer Vision

Soft Skills: Leadership, Team Collaboration, Adaptability, Problem Solving, Quick Learner

# EXTRA-CURRICULAR ACTIVITIES

#### •National Students Data Corp (NSDC) Vice President

Aug 2024 - Present

Led Machine Learning and Data Science sessions; organized on-campus and external hackathons

•Google Developer Student Club (GDSC) ASEB Technical Team Member

Sep 2023 - Aug 2024

Delivered workshops on Full Stack Development and fundamentals of Machine Learning / Deep Learning

•CodeChef Club Senior Executive

 $Sep \ 2023 - Aug \ 2024$ 

•Tennis Actively participating and competing at the university level

Ongoing