

## SKILLS/CERTIFICATION

Internship	Innovate - AI/ML Intern
Programming Languages	C/C++, JavaScript, Typescript, Python, Java
Tools & Platforms	Git, GitHub, Vercel, Firebase, Linux, AWS, Heroku
Frameworks & Libraries	React.js, Next.js, Node.js, MongoDB, Spring Boot
Certification	AWS Cloud Practioner, MERN Stack

## PROJECTS

### Food Order Website May 2021- June 2021

- **Frontend Development** - Utilized HTML, CSS, and Bootstrap to create a responsive and visually appealing user interface. Implemented JavaScript for interactive elements.
- **Backend Development** - Leveraged PHP to handle server-side scripting, including user authentication, session management, and secure handling of form submissions. Designed and implemented RESTful APIs to facilitate communication between the frontend and backend.
- **Database Management** - Constructed a **MySQL database** to store and manage user data, order details, and menu items. Ensured data integrity and optimized queries for efficient data retrieval and manipulation.
- **User Registration and Login**: Built secure user authentication and authorization systems with password encryption.
- **Menu Display and Ordering**: Developed menu page with over **20+** dishes and beverages to choose from.
- **Order Management**: Implemented an intuitive order placement and tracking system, enabling users to view their order history and current status.
- **Admin Panel**: Created an admin dashboard for managing menu items, processing orders, and viewing user activity.

### ASL Translator Aug 2023- Sept 2023

- **Natural Language Processing (NLP)**: Utilized Python and NLTK libraries to process and analyze audio inputs. Implemented algorithms to convert spoken language into text, followed by text-to-sign language translation. high accuracy rate of 95%.
- **Animation Development**: Used Flutter to create over 100+ dynamic and engaging animations representing sign language. Integrated the Flutter animations into the web interface to display the corresponding sign language gestures for the translated text.
- **Backend Development**: Built the server-side using the MERN stack (MongoDB, Express.js, React.js, Node.js). Implemented APIs to handle audio input processing, text translation, and animation data retrieval.
- **Frontend Development**: Employed HTML and JavaScript to design a user-friendly web interface. Integrated React.js for a responsive and interactive user experience, enabling users to input audio and view sign language animations in real-time. average response time of under **500 milliseconds**.
- **Database Management**: Leveraged MongoDB for efficient storage and retrieval of text translations and animation data. Ensured data integrity and optimized queries for fast response times.

### Real Time Object Detection Using Single Shot Multibox Detector(SSd) Feb 2025- March 2025

- **Frontend Development** - Utilized HTML, CSS, and Bootstrap to create a responsive and visually appealing user interface. Implemented JavaScript for interactive elements.
- **Description**: Developed a real-time object detection system using the SSD algorithm, achieving high accuracy and efficiency in detecting multiple object classes. The project involved dataset curation, deep learning model training, optimization, and deployment for real-time inference on video streams and static images.
- **Key Contributions**:
  - Implemented SSD-based object detection using TensorFlow/PyTorch.
  - Preprocessed datasets (COCO, Pascal VOC) with augmentation techniques for improved model generalization.
  - Trained the model with optimized hyperparameters, achieving 80
  - Enhanced inference speed to 30 FPS using GPU acceleration and model quantization. Deployed the model for real-time detection on video streams with OpenCV.
- **Technologies**: Python, TensorFlow/PyTorch, OpenCV, Deep Learning, CNNs, Model Optimization, GPU Acceleration
- This project showcases expertise in deep learning, computer vision, and real-time AI applications.

## EDUCATION

<b>Vellore Institute of Technology</b> <i>Bachelor of Technology in Information Technology — 7.9 CGPA</i> <b>Coursework</b> : Algorithms and Data Structures, Operating System, Database Management Systems, Computer Networks.	<b>July 2021 — June 2025</b> <i>Bhopal, Madhya Pradesh</i>
<b>Cambridge Court High School</b> <i>Senior Secondary — 90.%</i>	<b>April 2019 — April 2021</b> <i>Jaipur, Rajasthan</i>
<b>Cambridge Court High School</b> <i>Junior Secondary — 95.5%</i>	<b>May 2009 — April 2019</b> <i>Jaipur, Rajasthan</i>

## ACTIVIES

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NewszWiz quiz organized by India Today network telecsated lie on their channel

Representative at Infosys Work Group

Organiser at VRGC Game JAM