

BALAJI THOTA

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WORK EXPERIENCE

Web App Developer Intern

May 2022 – Nov 2022

Omnytrix Integrated Labs - Hyderabad, India

- Developed and deployed web applications for IoT and automation projects, integrating real-time sensor data into intuitive web interfaces, improving data processing efficiency by 15%.
- Worked with various teams to optimize automation workflow, enhancing system efficiency and reducing manual intervention.
- Utilized HTML, CSS, Python, JavaScript, and backend technologies to build responsive, user-friendly web solutions, improving user engagement.
- Assisted senior developers in troubleshooting and optimizing existing platforms, reducing system downtime by 10%. Tech Stack: HTML, CSS, JavaScript, IoT Integration, Backend Technologies, Web Development, Automation Systems, Git, Agile

Full Stack Developer Intern

May 2020 – Apr 2022

Datadot Software Solution (Remote) - Hyderabad, India

- My role is to design and develop a responsive **web application** with a MySQL back-end and interactive front-end using HTML, CSS, and JavaScript, to enhance user engagement.
- Implemented business logic in the back-end using Python (Flask/Django), ensuring seamless data processing and API integration.
- Optimized application performance by improving database queries and front-end responsiveness, enhancing user experience.
- Collaborated with a cross-functional team to develop and deploy new features, ensuring smooth integration between the front-end and back-end.

PROJECT EXPERIENCE

Thota Motors – Web Application | *HTML, CSS, JS* | [Website](#) | [GitHub](#)

Present 2025

- Developed a responsive website for my father's business using HTML, CSS, JavaScript, with plans to back-end integration using Python (Flask) and a database for employee-based login and role management.

Extending Forward-Forward Algorithm | *ML, Optimization* | [GitHub](#)

Nov 2024

- Enhanced operational efficiency of the Forward-Forward algorithm by extending its application to complex datasets and diverse activation functions, exploring alternative learning methods to backpropagation using advanced statistical techniques.

Orgdb Database Management System | *MySQL, Python* | [GitHub](#)

Feb 2024

- Developed Orgdb Database Management System for efficient data management and role-based access control. Implemented login management, admin privileges, and a user-friendly interface for secure operations.

Image Captioning | *Python, PyTorch* | [OneDrive](#)

Apr 2024

- Built an image captioning system using LSTM attention mechanism generating human-like descriptive captions for images using the Flickr-8k dataset. Integrated glove context into mechanisms for more accurate, context-aware captions, enhancing accessibility and retrieval.

Android Malware Detection | *Python, TensorFlow* | [GitHub](#)

Nov 2023

- Developed an Android malware detection system using machine learning with static and dynamic analysis to enhance mobile security. Enhanced security by identifying malware, mitigating risks of financial loss, identity theft, and privacy breaches.

- Developed a real-time drowsiness detection system using OpenCV Haar cascades for face and eye detection, applied Eye Aspect Ratio (EAR) calculation to accurately detect signs of drowsiness.

SKILLS

Technical Skills: Python, SQL, Matplotlib, Data Structures & Algorithms.

Web Development: HTML, CSS, JavaScript, Flask, Django, Bootstrap.

Tools: GIT, VS-Code, PyCharm, SQLite, MySQL.

Soft Skills: Teamwork, Communication, Time Management, Presentation.

EDUCATION

- **Master of Science in Computer Science**

Jan 2023 – Dec 2024

State University of New York, Utica, NY

GPA: 3.44/4.00

- **Bachelor of Technology in Computer Science**

2018 – 2022

TKR College of Engineering and Technology, Hyderabad, India

CGPA: 7.55/10.00

CERTIFICATIONS

- Python for Everybody Specialization | University of Michigan, Coursera
- Web Design for Everybody | University of Michigan, Coursera
- Full Stack Web Development Bootcamp | Udemy