

# MARK AONDOHEMBA ORTESE



## EDUCATION

### B.Tech. Computer Engineering

Expected June 2026

C. V. Raman Global University, Bhubaneswar, Odisha, India

## Technical Skills

**Technical Skills:** Hardware Design and Embedded Systems, Data Analysis, Computational Modeling, Machine Learning, Programming and Software Development, Cryptography, Printed Circuit Board (PCB) Design

**Programming Languages:** Java, Python, C, C++

**AI & Computer Vision:** TensorFlow/Keras, ResNet-50, Deep Neural Networks, OpenCV.

**Tools, Databases, and OS:** Cisco Packet Tracer, Altium Designer, KiCad, GitHub, Windows, Linux/Ubuntu, Supabase, VS Code.

## ACADEMIC PROJECTS

### Game Development (Alien Invasion) Using Python

July 2023

- I designed and developed a 2D arcade-style game using the `pygame` library, creating smooth graphics, animations, and custom visual assets including sprites and backgrounds.
- I implemented core gameplay mechanics such as collision detection between players, bullets, and aliens, progressive difficulty levels with increasing enemy speed and wave complexity, and a real-time scoring system.
- I also integrated sound effects and background music to enhance the gameplay experience, providing audio feedback for actions such as shooting, collisions, and level progression, which improved overall user engagement.

### Machine Learning-Based Disease Prediction Model

- As part of my 5th semester experiential learning project, I developed a healthcare-focused machine learning system to predict diabetes and heart disease using Python (Pandas, NumPy, Scikit-learn, TensorFlow) on the Pima Indian Diabetes and UCI Heart Disease datasets.
- Implemented and evaluated multiple classification models including Logistic Regression, Random Forest, Support Vector Machines, Decision Trees, and Neural Networks to identify high-risk patients and improve diagnostic support.
- I achieved up to **89% accuracy, 87% precision, 85% recall**, and an **F1-score of 0.86** through cross-validation and hyperparameter tuning; visualized key clinical risk factors to support model interpretability for healthcare decision-making.

## RESEARCH & PUBLICATIONS

- Cross Domain Intrusion Detection Framework with ML and Pre-Trained DNN-Based Modular Ensemble for IoE Ecosystems

*Under Review*

- Improving Military Object Detection Under Noisy Conditions Using Spatial Denoising and ResNet-50 Deep Features

*Accepted for publication in IEEE Xplore Proceedings — International Conference on Emerging Trends in Advancements and Applications of Computational Intelligence Techniques (ETAACT 2026)*

## PROFESSIONAL / WORK EXPERIENCE

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### Computer Engineer and Service Provider, Barnamfel Service Center, Nigeria Feb 2020 – Nov 2022

- In this role, I provided personalized computer services and technical support to over 80 clients, focusing on improving system performance, reliability, and overall user satisfaction.
- I was also a Network Administrator for more than 12 organizations, where I was responsible for managing network infrastructure, ensuring secure and uninterrupted operations, and resolving connectivity and system-related issues.
- Through regular hardware and software installations, upgrades, and system configurations, I ensured peak system performance and long-term maintainability for both individual and corporate clients.

### Data Science Intern, Krutanic Solutions, Bengaluru, India June 2025 – August 2025

- During my 2 months internship, I applied statistical methods and machine learning algorithms to predictive and classification tasks, gaining practical exposure to feature selection, model training, performance evaluation, and data visualization.
- As part of my Data Science internship, I worked with real-world datasets and gained hands-on experience across the complete data analysis pipeline, including data collection, cleaning, preprocessing, and exploratory data analysis using Python.

## ACTIVITIES

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<b>Leadership and Volunteering</b>	<b>Oct 2021 - Present</b>
<ul style="list-style-type: none"><li>• Established and nurtured a coding community at C.V. Raman Global University to facilitate technical resource sharing and collaborative innovation among students.</li><li>• Orchestrated alumni engagement initiatives, connecting over 400 students with mentors for professional guidance and career development</li><li>• Spearheaded fundraising campaigns that secured scholarships for school children and successfully met all event funding targets.</li><li>• Directed high-impact community service activities, including outreach to orphanages and hospitals, to promote social responsibility within the organization.</li></ul>	

## AWARDS, HONORS, GRANTS, & FELLOWSHIPS

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<ul style="list-style-type: none"><li>• Study in India (SII) Scholarship <i>Full Scholarship awarded for academic excellence</i></li><li>• Students Leadership Excellence Award, 2024.</li><li>• Outstanding Open Source Contributor Award, C.V. Raman Global University, 2024.</li></ul>	<b>2022 - Present</b>
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