

Edwin Eras

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Profile Summary

Highly motivated Research Assistant with 3 years of experience in software development and implementation. Skilled in programming, AI-driven neural networks, and database management. Experienced in research methodologies, machine learning model optimization, and agile workflows. Passionate about applying technical expertise to support innovative research projects.

Education

Database Application Developer
Seneca Polytechnic, Toronto, ON.

September/2024 - Currently

- Gained expertise in managing large-scale datasets, data storage solutions, and Extract, Transform, Load processes. Developed skills in data modeling, processing, and analysis to support efficient decision-making.

Bachelor of Computer Science
Escuela Superior Politécnica del Litoral, Ecuador.

September/2018 - October/2023

- Developed a strong foundation in AI principles, algorithmic analysis, and research techniques, gaining expertise in problem-solving, data-driven decision-making, and optimizing computational processes.

Research Experience

Research Assistant | FADCOM

December/2024

- Facial expression analysis in children with autism spectrum disorder using a refined Human-Robot-Game platform for active learning.
- Determined new metrics through an experimental methodology using OpenFace 2.0, STATA and R improving the facial, emotion and attention recognition.
- Authored and documented research following the *Taylor & Francis* manuscript format, contributing to a Q1-ranked publication in the Information and Communication Technologies category.

Research Assistant | CIDIS

October/2024

- Early detection of Papaya ringspot virus (PRSV) in papaya (*Carica papaya*) crops using multispectral images and deep learning related to molecular techniques.
- Developed a labeled dataset of papaya leaves using a drone with a multispectral camera and YOLOv8 for segmentation, achieving 91.3% accuracy.
- Identified infected plants through RT-PCR laboratory tests and a Compact Convolutional Transformer model, attaining an 85.92% recognition rate.

Research Assistant | FADCOM

October/2024

- Advanced Metrics to Evaluate Autistic Children's Attention and Emotions from Facial Characteristics Using a Human-Robot-Game Interface.
- Enhanced parameter accuracy by analyzing video timestamps and graphs, improving result readability for attention and emotion recognition in therapeutic applications.
- Redesigned graphical components of a dashboard using JavaScript and Node.js, enhancing data retrieval for more insightful information.

Relevant Skills

- **Programming Languages:** Python, JavaScript, Java, R.
- **Web Technologies:** Django, NodeJS, Spring, HTML, CSS, React.
- **RDMS & NRDMS:** MySQL, PostgreSQL, Oracle SQL, Microsoft SQL Server, MongoDB.
- **Microsoft Technologies:** Power BI, Word, Excel, Power Point, Microsoft 365 Copilot.
- **Soft Skills:** Problem Solving, Critical Thinking, Teamwork, Organization.

Work Experience

System Technician Programmer | COBOL, Java, Oracle SQL
CREDIMATIC SA – Ecuador.

September/2023 - February/2024

- Led the migration of the company's financial databases and software functionalities to a new company infrastructure, ensuring security, data integrity, and seamless integration with existing systems.
- Created and updated comprehensive software manuals, ensuring clear communication of technical processes for daily operations, and enhancing user understanding of system functionalities.

Android Application Developer | Java, Ruby on Rails, Flutter, MySQL
SCHLUMBERGER – Ecuador.

February/2023 - July/2023

- Implemented school webapp for over 504 Ecuadorian schools, focusing on responsive design, user-friendly navigation, and enhancing overall user experience for students, parents, and staff.
- Front-end and mobile development using web technologies to facilitate posting and managing of homework and online-classes, prioritizing network traffic and minimizing delays.

Fullstack Developer | React Native, Ionic, Bootstrap, PostgreSQL
HANGAROA SA – Ecuador.

February/2021 - April/2022

- Content creation to provide digital marketing services and manage social media content for Ecuadorian companies, optimizing user experience and increasing online visibility for 19 local brands.
- Development and maintenance of an end-to-end Website and Android application, utilizing both front-end and back-end technologies, ensuring a seamless user experience and robust functionality.

Certifications

August/2024 - Academic Research Foundations.
December/2023 - LINUX Bash, Shell Scripting.
September/2023 - ESPOL Academic Writing.

October/2022 - Python Essential Training.
January/2022 - ESPOL R for Research.
April/2021 - Statistics Foundations 1.