

Contact

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Top Skills

Virtual Learning
Computer Animation
Lean Six Sigma

Certifications

Robotics: Estimation and Learning
Robotics: Mobility
Essential Google Cloud
Infrastructure: Foundation
Robotics: Computational Motion Planning
Data-Driven Decision Making (DDDM)

Publications

The application of support vector machine (SVM) using cielab color model, color intensity and color constancy as features for ortho image classification of Benthic Habitats in Hinatuan, Surigao del sur, Philippines

DESIGN AND DEVELOPMENT OF A DECISION SUPPORT SYSTEM (DSS) FOR RICE INSECT PEST INFESTATION IN BUTUAN CITY, PHILIPPINES

MAPPING OF HIGH VALUE CROPS THROUGH AN OBJECT-BASED SVM MODEL USING LIDAR DATA AND ORTHOPHOTO IN AGUSAN DEL NORTE PHILIPPINES.

DESIGN AND DEVELOPMENT OF A STATIONARY PEST INFESTATION MONITORING DEVICE FOR RICE INSECT PESTS USING CONVOLUTIONAL NEURAL NETWORK AND RASPBERRY PI

Coupling LiDAR Data and LANDSAT 8 OLI in Delineating Corn Plantations in Butuan City, Philippines

James Earl Cubillas

Researcher, Data Scientist, Computer Vision Engineer
Caraga, Philippines

Summary

Experienced Researcher with a demonstrated history of working on government-sponsored research projects. Skilled in GIS-Remote Sensing, Robotics, Python, Deep Learning, and Data Science. Strong engineering professional with a Master of Science - MS focused on Information Technology from Caraga State University.

Experience

Caraga State University
1 year 5 months

Research and Development, and Innovation (RDI) Center Chief
January 2024 - Present (1 year)

Center-Chief, Virtual Learning Research Center (VLRC)

At VLRC, we aim to bridge the gap between technological advancements and pedagogical strategies, ensuring that virtual learning replicates and enhances the traditional learning experience. We are committed to developing evidence-based practices that cater to diverse learning needs, fostering inclusivity, engagement, and accessibility in online education.

Engagements:

Chairperson - Pre-University Intervention Program (Manlayag Online Platform) of Caraga State University

Instructor - I
August 2023 - Present (1 year 5 months)
Ampayon, Butuan City

Instructor - I - Department of Computer Science, College of Computing and Information Sciences.

Project Staff L3 - Mine Geotechnical and Environmental Assessment Robotic Systems (MineGEARS)

Qualfon
Data Scientist

November 2022 - April 2023 (6 months)

Cebu, Central Visayas, Philippines

Caraga State University

1 year 8 months

Data Science Researcher and Instructor I

July 2022 - September 2022 (3 months)

Philippines

A faculty member of the Department of Computer Science of the College of Computing and Information Sciences (CCIS), Caraga State University.

Project Staff (Level 3) - Design and Development of Intelligent Traffic Control and Management System

Data Scientist/Robotics Engineer - DOST-GIA: Science Research Specialist II

June 2022 - July 2022 (2 months)

Philippines

Program Title: Accelerated R&D Program for Capacity Building of Research and Development Institutions and Industrial Competitiveness: Niche Centers in the Regions for R&D (NICER) Program:Sustainable Mineral and Mining Operations using Industry 4.0

Project: Project 2. Mine Geotechnical and Environmental Assessment Robotic System (Mine GEARS)

The general objective of this project is to develop a Mine Geotechnical and Environmental Assessment Robotic System (Mine GEARS) that will serve as a cost-effective platform for both the Monitoring Agency (MGB) and Mining company in the remote monitoring of geotechnical and environmental conditions.

Specifically, this project will:

1. Design and develop an Integrated Sensor System that can collect key environmental and geotechnical parameters in the mining site.
2. Design and develop a UGV-UAV system that can carry the Integrated Sensor System payload and have autonomous navigation capabilities.

This project is funded by the Department of Science and Technology in partnership with the Caraga State University.

Responsibilities;

- Computer Vision Specialist: Development of Computer Vision Software for the State Estimation of the Robotic System.
- Develop software for semantic segmentation and other vision-based state estimation.
- Develop the user interface/front-end for real-time visualization and control of the rover.
- Perform and participate in project-related activities.

Computer Vision Engineer/Data Scientist - DOST-GIA: Computer Programmer II

February 2021 - May 2022 (1 year 4 months)

Butuan City

DOST PCIEERD Artificial Intelligence Program Project: Design and Development of Intelligent Traffic Control and Management System.

Functions and Responsibilities:

- Develop a compact State Representation for vehicle traffic to be fed as input to the Deep Reinforcement Learning Agent (AI Traffic Controller).
- Design and Develop messaging patterns for each traffic controller.
- Design and Develop an AI Traffic controller using IoT devices.

Project SPARTA PH

Scholar (Data Engineer)

January 2020 - September 2022 (2 years 9 months)

Philippines

Data engineer builds and manages data workflows, pipelines, ETL processes, and platforms. Data engineers are mainly responsible for the management of the entire data lifecycle: ingestion, processing, surfacing, and storage. They leverage their in-depth knowledge of programming, databases, data warehousing, ETL, and data architecture and pipelining, to use complex tools and techniques to handle data at scale. They also deploy machine learning and statistical models in production. This requires data engineers to understand analytics and business intelligence, together with various frameworks and technologies.

For this learning pathway, you will be trained across the following competencies:

Data Engineering

Operational Analytics

Data Governance

Computing
Data Visualization
Data Analytics Methods and Algorithms
Statistical Techniques
Research Methods
Domain Knowledge

Manage your Associated Property and Map it for Visualization
(MapX)

Software Engineer/Data Scientist for Deep Learning Applications -
DOST-GIA: Computer Programmer III
February 2020 - January 2021 (1 year)
Butuan City, Philippines

Function and Responsibilities:

- Design and Develop Computer-Aided Parcellary Profiling.
- Install, Configure, manage GPU-based Spatial Server.
- Design and Develop back-end and front-end technology for Mapx Portal.
- Develop Mapx Web API that will communicate with the android application of other systems that support Web API.

Caraga State University
Researcher and Instructor I
January 2019 - December 2019 (1 year)
Ampayon, Butuan City, Agusan Del Norte

UNFAO AQUA-R Project
Software Consultant
September 2018 - August 2019 (1 year)
Region XIII - Caraga, Philippines

Supporting Aquaculture Resources Mapping and Development Planning
through ICT-based Solutions - TCP/PHI/3602 C2

Services for the Development of an Integrated Geographic Information System
(GIS) Mapping -AQUAR. A Project of Food and Agriculture Organization of
the United Nations (UNFAO) with the partnership with Bureau of Fisheries and
Aquatic Resources (BFAR), and Caraga State University

UNFAO EPRiMA Project: Enhanced Production and Risk
Management in Agriculture
Software Engineer for GIS Applications
March 2018 - August 2018 (6 months)

Philippines

The funded research project entitled Enhanced Production and Risk Management in Agriculture Integrated Decision Support System (EPRiMA). A Project of Food and Agriculture Organization of the United Nations (UNFAO), Department of Agriculture and Caraga State University

Phil-LiDAR 2.B.14, Caraga State University

2 years 3 months

Machine Learning Engineer - DOST-GIA: Senior Science Research Specialist

January 2016 - March 2017 (1 year 3 months)

Region XIII - Caraga, Philippines

Job Description: Machine Learning Engineer, Remote Sensing Specialist
- Develop procedures using segmentation and supervised classification algorithms (SVM) for high-resolution classification of High-value crops on a derived LiDAR datasets.

Project 2.2.14 LiDAR Data Processing, Modelling, and Validation by HEIs for the Detailed Resources Assessment in Mindanao. A funded research project of the Department of Science and Technology (DOST-PCIEERD), in partnership with Caraga State University.

Machine Learning Engineer - DOST-GIA: Research Associate I

January 2015 - January 2016 (1 year 1 month)

Job Description: Machine Learning Engineer, Remote Sensing Specialist

Responsible Mining in Mindanao- ICT Support (ICT4RM)

Science Research Specialist

July 2014 - December 2014 (6 months)

Region XIII - Caraga, Philippines

<http://stprmm.carsu.edu.ph/>

CLAIMS-GIS

GIS Analyst

April 2013 - October 2013 (7 months)

Region XIII - Caraga, Philippines

<http://www.carsu.edu.ph/?q=claims-gis>

Education

Caraga State University

Master of Science - MS, Information Technology · (2018 - 2020)

Coursera Licenses funded by the DOST-Caraga Scholarship Program

· (2020)

The Johns Hopkins University

Data Science Specialization on Coursera: Data Science / Data Analytics · (2018 - 2019)

Caraga State University

Bachelor of Science in Electronics and Communications Engineering · (2008 - 2013)