Joshua T. Velasco

- jtvelasco1@up.edu.ph
- https://joshiii15.github.io/webportfolio/
- +63 908 184 7539
- http://www.linkedin.com/in/joshua-velasco-748ba42a8

Skills Summary

Programming: JavaScript, Python, C++ (Arduino)
Front-End Development: HTML5, CSS3, Bootstrap, Figma
Back-End Development: Node.js, Express.js, MongoDB, Postman, REST API
Full-Stack Development: React.js, JS DOM Manipulation, Fetch API, Git, Vercel
Machine Learning: Supervised Training, Machine Vision

Education

ZUITT TECH PROGRAM — Quezon City, Philippines
Main Course Package (MERN) - Full-Stack Web Development — September 2024 – January 2025

UNIVERSITY OF THE PHILIPPINES – LOS BAÑOS — Los Baños, Laguna
MS Agricultural Engineering — February 2023 – August 2025
Research Interest/Thesis: AI utilization for precision agriculture, Machine Learning
Relevant Coursework: Mechatronics for Agriculture and Biosystems, Special Problems - Fundamental Techniques in Machine Vision (MV) and its Application to ABE

BENGUET STATE UNIVERSITY — La Trinidad, Benguet
BS Agricultural and Biosystems Engineering, *cum laude* — August 2018 – June 2022

Project Experience

ZUITT TECH PROGRAM Capstones

Capstone 1: Portfolio Website
https://joshiii15.github.io/webportfolio/
- Designed and developed a responsive personal portfolio website using Figma, HTML5, CSS, and Bootstrap to showcase coding projects and experiences effectively.
- Implemented modern web design principles to ensure mobile responsiveness and enhanced user experience.

Capstone 2: E-commerce API
https://github.com/Joshiii15/e-commerce-api.git
- Built a robust RESTful API for an e-commerce platform using MongoDB, Node.js, and Express.js.
- Integrated CRUD functionalities to support user registration, login, product management, and cart operations.
- Ensured secure data handling with authentication and input validation mechanisms.

Capstone 3: E-commerce React Application
http://zuitt-bootcamp-prod-482-8075-velasco.s3-website.us-east-1.amazonaws.com
- Developed a full-stack e-commerce application with React for the client-side interface.
- Utilized the fetch API to enable seamless backend communication with the previously built e-commerce API.
- Delivered a fully functional web application, hosted in AWS, with responsive design and interactive features such as product browsing, adding to cart, and checkout.

MS Ag Eng Projects and Thesis

Thesis: Development of a Precision Weeder Using a Deep Learning-Based Machine Vision System
- Designed and implemented a controller for crop avoidance using Python and Arduino, enabling precise motion in selected agricultural fields.

- Developed a machine vision system leveraging a custom YOLOv5s deep learning model for accurate crop-weed detection, optimizing agricultural weeding processes.

Project 1: Investigation of Weed Detection Performance of YOLOv5s Model
Trained and evaluated a custom YOLOv5s deep learning model using Python to assess its weed and crop detection performance in a simulated agricultural environment.

Project 2: Automated-Breaking System
Engineered an automated braking system for path control of a push-type wheeled device using Arduino, enhancing maneuverability and safety in agricultural equipment.

Additional Skills

- Print material layout using Adobe Indesign
- Graphic design using Adobe Illustrator
- 3D Modeling and Animation using SolidWorks
- Video Editing using Adobe Premiere, AfterEffects, and Sony Vegas Pro
- Works and communicates effectively in teams to complete projects or solve problems.
- Willingness to learn new technologies or frameworks quickly.
- Analytical and creative thinking to debug issues or develop solutions.

Related Training/Certifications

Introduction to Generative AI
By Google Cloud Training on Coursera
December 2024

Introduction to Large Language Models
By Google Cloud Training on Coursera
December 2024