

# JER HESEOH ARSOLON

BS APPLIED MATHEMATICS

## Contact

A3W apartment F.O Santos Street Umali Subd. Brgy Batong Malake, Los Baños Laguna

+63 976 279 4990

Linkedin Github

jrarsolon@up.edu.ph

## Leadership Experience

## Led projects:

- TSP for UPLB Campus Tour
- Study Time Optimization for BS Applied Mathematics student at UPLB
- Harvesty: A Web Application for Agricultural E-Commerce
- Student Organization Management System (Database)
- QR Code Generator and Scanner in Python

## Research Paper

 Geospatial Machine Learning for Predicting Banana Yield Gaps in the Philippines Under Climate Uncertainty

### **About Me**

I'm a recent graduate with a Bachelor's degree in Applied Mathematics, passionate about solving real-world problems using data-driven methods. I'm actively developing skills in Data Science, Machine Learning, and AI, with a strong commitment to growing in data analysis, statistical modeling, and computational techniques to uncover insights and build impactful solutions.

## Education

## University of the Philippines Los Baños

Graduated 2025

BS Applied Mathematics - Major in Quantitative Management and Decision Science

#### **Caloocan City Science High School**

Graduated 2015

## Work Experience

#### Tutor.com

#### **Advanced Tutor**

2022-Present

• Provide tutoring in computer science and mathematics to students ranging from high school to college level.

## **Elinnov Technologies**

#### Software Engineer Intern

June 2024 - August 2024

 Assisted in developing web applications using ASP.NET MVC and C#. Worked with both SQL and MongoDB databases to implement and manage data-driven features. Collaborated with senior engineers on coding tasks and project reviews.

## (8) Test Scores

#### **Personality**

- Advocate (INFJ-T)
- Introverted 55%, Intuitive 52%, Feeling 52%, Judging – 57%, Turbulent – 61%

#### Language

- English C1 Advance
- · Tagalog Native
- · Japanese Elementary

## **Projects**

#### **TSP for UPLB Campus Tour**

Used QGIS and Python to optimize a route tour for UPLB campus tour.

## Optimizing Study Time for BS Applied Mathematics student at UPLB

Used steepest descent method to improve academic performance. Developed practical tools and strategies for effective time management.

## Harvesty: A Web Application for Agricultural E-Commerce

A farm-to-table e-commerce app for the Department of Agriculture, connecting farmers and consumers with product listings, order tracking, and admin tools. Built with React, Express, and MongoDB.

# **Student Organization Management System (Database)**

A student organization management system with UI and full CRUD functionality, built using Python and MariaDB. It manages memberships, roles, fees, and generates detailed reports on member status and payments.

## **Relevant Coursework**

- Math 174: Numerical Analysis I
- Math 175: Numerical Analysis II
- Math 180: Probability Theory
- AMAT 170: Theory of Interest
- AMAT 160: Linear Programming
- AMAT 161: Non-Linear Programming
- AMAT 162: Integer and Dynamic Programming
- AMAT 163: Metaheuristics
- AMAT 167: Operations Research I
- AMAT 168: Operations Research II
- CMSC 22: Object-Oriented Programming
- CMSC 127: File Processing and Database Systems
- CMSC 100: Web Programming

#### **Technical Skills**

#### **Programming Languages**

- Python
- Matlab
- R
- C#
- Java
- Javascript, Typescript (HTML, CSS)
- C++
- SQL

#### **Data Analysis Tools**

- Numpy
- Pandas
- SciPy
- · Sciit-learn

## **Database Management**

- MySQL
- PostgreSQL
- MongoDB
- MariaDB

## **Development Environments**

- Jupyter Notebook
- RStudio
- Visual Studio Code or Visual Studio
- EclipseIDE

#### **Version Control**

Git

#### **Tech Stack**

- Frontend: ReactJS
- · Backend: Node.js with Express.js
- · Database: MongoDB

#### Containerization

- Docker
- Kubernetes

#### CI/CD

GitHub Actions