- 145-A, Brgy. San Marcos, San Pablo City, Laguna
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- +63 936 496 5076

# Frances Dominic BANAG

#### **SKILLS**

- Python (with experience with Pandas)
- Dart (flutter)
- Javascript
- HTML
- · CSS
- Postgresql
- Matlab
- Postman

# **WORK EXPERIENCE**

# **Employment History**

- Hardware Electronics Engineering (Dyson Pte Ltd) September 2022 August 2023
  - BOM Compare Automation using Pandas
  - Electronic HW design verification
  - Production Line support for failure analysis and problem solving
- Software Engineer (Invix A.I.): June 2022 August 2022
  - Automate image collection from CCTV feeds using Selenium
  - Update and organize database using Postman

# **Programming Experience**

## Python

- Automated Engineering BOM(Bill-of-Materials) data validation using pandas (Dyson Electronics Pte Ltd)
- Multiprocessing Automated video frame capturing software using selenium (Invix A.I.)
- Console Based 2-player chess game with check/checkmate capabilities and possible move checker (University Project)

# Microcontroller programming using C++

- Automated Capacitance based cooking oil FFA concentration arduino based measurement device (University Thesis)
- Maze-solver and path detection arduino based automated robot (University Project)

#### Front-End

 HTML, CSS and Javascript for Personal Website (https://empoleon2541.github.io/Website/)

#### Matlab

- Y-bus & Z-bus matrix formation program (University Project)
- Frequency Band Pass Filter (University Project)
- Hourly Electricity Cost Calculator (University Project)

# Frances Dominic BANAAG

#### **EDUCATION**

#### University of the

#### Philippines - Los Baños

Bachelor of Science in Electrical Engineering Majoring in Electronics Engineering

Class of 2022

# San Pablo City Science High School

Class of 2014

# AWARDS AND ACCOMPLISHMENTS

**DOST-SEI Merit** 

**Scholarship** 

2014-2017

**Provincial Scholar of** 

Laguna

2015-2019

# **AFFILIATIONS**

### **UP Photographers' Society**

Member since 2016

Vice President in 2019-2020

#### **UP Lawn Tennis**

#### Raqueteers' Club

Member since 2018

# CHARACTER REFERENCES

#### Allan Maligaya

Dyson Electronics Manager Allan.maligaya@dyson.com

#### Jerard Ancel D. Eusebio

UP Photographers' Society Adviser and DHUM UPLB Assistant Professor jdeusebio@up.edu.ph

#### Engr. Aryan Paola A. Manalo

Adviser and Former DEE UPLB Instructor aamanalo@up.edu.ph

## **PUBLICATION**

DEVELOPMENT AND ASSESSMENT OF A CAPACITANCE BASED SENSOR FOR FRYING OIL FFA CONCENTRATION EVALUATION (University Thesis)

#### **Others**

- Database Management using using Postman (Invix A.I.)
- Nuvoton Programming using C (University Class)
- vhdl programming (University Class)
- Microsoft Visual Basic Programming (University Class)

# **Statistics and Data Processing**

- Analysis of Relationship between Capacitance and FFA concentration for Cooking Oil (University Thesis)
- 2014 Philippine Statistics Quiz UPLB representative

# **Digital Circuit Design and Fabrication**

#### Eagle-CAD

- Interdigital capacitor based sensor design and fabrication
- Logic circuit based vending machine system design and fabrication

#### Logism

- Logic circuit based automotive lights controller design and simulation (University Project)
- Logic circuit based christmas lights (University Project)

# Management and Leadership

- Various Management class exercises
- Vice Presidential duties for the UP Photographers' Society
- Management of the shift to an online organizational set-up during the start of the pandemic

# **Event/Project Lead**

- BOM comparison automation software development (Dyson Electronics Pte Ltd)
- Pagitan A UP Photographers' Society Exhibit

# **Certifications**

- Become a Data Analyst Learning Path (LinkedIn Learning)
- Advanced Python: Working with Databases (LinkedIn Learning)
- Predictive Analytics Essential Training: Data Mining (IIBA)
- Data Cleaning in Python Essential Training (LinkedIn Learning)
- Big Data in the Age of AI (NASBA)
- Agile: New Product Development for Manufacturers (LinkedIn Learning)
- Project Management Foundations: Small Projects (LinkedIn Learning)
- JavaScript Essential Training (LinkedIn Learning)
- Designing Restful APIs (LinkedIn Learning)
- Electrical Systems: Communications and Data (PMI)