Engr. Justin D. de Guia

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OVERVIEW

Licensed electronics engineer with over 2 years of experience in the field of research and academia looking for an opportunity in ***data analytics*** and ***software development***. A graduate student researcher focusing his studies related to application of artificial intelligence in solar energy management such as ***forecasting***, ***classification***, and ***anomaly detection***. Knowledgeable in programming languages such as ***C***, ***Python***, ***Java***, and ***MySQL*** query. Bringing forth self-starter attitude and work-ethic. All of my works and personal projects can be found at https://github.com/jddeguia

RELEVANT WORK EXPERIENCE

Graduate Student Researcher **De La Salle University** **May 2019- December 2020**

- Doing research about solar energy management system under De La Salle University- Intelligent System Laboratory
- Publishes paper related to application of machine learning algorithms and neural networks to solar energy management system
- Gives detailed and professional commentary to the research papers submitted to IEEE HNICEM and TENCON

Faculty **Adamson University** **June 2018-May 2019**

- Taught subjects for students specializing in science and engineering such as technical drawing, physics, and quantitative research

EDUCATION

De La Salle University **December 2018- December 2020 (Expected Graduation)**
Master of Science in Electronics and Communications Engineering major in Artificial Intelligence CGPA: 3.9000

University of the City of Manila (*Pamantasan ng Lungsod ng Maynila)* **June 2011- April 2016**
Bachelor of Science in Electronics and Communications Engineering CGPA: 2.2500

SKILLS

- **Programming:** C, Python, Java, MySQL Query
- **Programming Principles:** Object-oriented design and programming
- **Data Analysis and Visualization:** Numpy, pandas, matplotlib, seaborn, Tableau
- **Machine Learning Algorithms and Neural Networks:** tensorflow, scikitlearn
- **Electronic Design:** Arduino, Raspberry Pi, PCB design, microprocessor programming

PERSONAL RESEARCH AND PUBLISHED JOURNAL

- ***Performance Comparison of Classification Algorithms for Diagnosing Chronic Kidney Disease***
  - https://ieeexplore.ieee.org/document/9073568
- ***Using Stacked Long Short-Term Memory with Principal Component Analysis for Short Term Prediction of Solar Irradiance based on Weather Patterns***
  - https://github.com/jddeguia/compare-forecast-models
- ***Solar Irradiance Prediction Based on Weather Patterns Using Bagging-Based Ensemble Learners with Principal Component Analysis***
  - https://github.com/jddeguia/bagging-lstm
- ***Application of Ensemble Learning with Mean Shift Clustering for Output Profile Classification and Anomaly Detection in Energy Production of Grid-Tied Photovoltaic System***
  - https://github.com/jddeguia/anomaly-detection-bagging-mlp
  - https://github.com/jddeguia/energy-output-profiling

AWARDS AND CERTIFICATIONS

- **Philippine government scholarship recipient (May 2019-December 2020):** Recipient of Department of Science and Technology-Engineering Research and Development Technology (DOST-ERDT) for graduate student. Enjoys full scholarship with monthly stipend
- **Licensure for Electronics and Communications Engineer (October 2017):** license for electronics engineer awarded by Philippine Professional Regulation Commission (PRC)