Jephraim MANANSALA

Data Scientist | Business Analyst | Electrical Engineer

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Detail-Oriented Data Scientist with six years of hands-on experience in developing and executing data-driven solutions for the utilities and energy industry. Consistently driven actionable insights by seeing the 'big picture', delivered good results with cross-functional teams, and solved challenging problems. Having experienced the industry from the inside, I have recognized the potential growth opportunities by utilizing the power of data. This led me to develop and sharpen my knowledge in machine learning, artificial intelligence, big data analytics, statistical modelling, data engineering, and cloud computing. With my skills, experience, and industry exposure, I aim to support organizations toward data-driven decision-making to pave the way for innovation and growth.

EDUCATIONAL BACKGROUND

Asian Institute of Management — **Makati, Philippines**
MS Data Science — **2020 - 2021**
Consistent Dean's Lister

Mapúa Institute of Technology — **Manila, Philippines**
MS Electrical Engineering — **2017 - 2020**
Petron Corporation Full-ride Scholarship Recipient

BS Electrical Engineering — **2009 - 2013**
Academic Scholar
Petron Corporation Full-ride Scholarship Recipient
2nd Placer, Feb. 2014 PRC Registered Electrical Engineer Licensure Examinations

PROFESSIONAL EXPERIENCE

PETRON CORPORATION *(Oil Refinery, Power Plant, and Petrochemical Complex)* — **Bataan, Philippines**
Project Engineer — **2018 - 2020**
Planned, designed, implemented, and managed refinery and power plant capital expenditure projects ensuring the project will be completed on time, within the budget, and with the highest level of delivery standards

- Formulated budgetary and detailed project cost estimates amounting to 1.5 Billion Pesos which guided the management in budget-related decision making and planning considerations
- Supervised a team of 30 electrical and instrumentation personnel and synergized with multi-disciplinary teams to successfully construct and commission the 650 Million Peso oil distillation unit revamp
- Designed more than 200 blueprint sheets of international standards-compliant construction drawings which streamlined the implementation and execution of refinery and power plant construction projects

Electrical Reliability Engineer — **2014 - 2018**
Ensured the safe, reliable, efficient, and economical operation of the electrical and instrumentation equipment at the oil refinery and power plant

- Provided data-driven solutions and recommendations that contributed to energy savings amounting to millions of pesos and maintained zero percent downtime in the refinery and power plant
- Spearheaded the data collection, cleaning, and analysis for the Key Performance Indicators (KPIs) of the engineering and maintenance departments at the refinery and power plant which enabled effective business planning and organizational resource management
- Developed an Asset Management Policy that optimizes Preventive Maintenance (PM) and Predictive Maintenance (PdM) for all electrical equipment to ensure the optimum performance throughout its life cycle

ACES REVIEW CENTER — **Manila, Philippines**
Lecturer — **2015-2016**
Designed, developed, and delivered lecture materials using a range of methods and platforms.

- Taught basic and advanced Electrical Engineering courses to more than 200 engineering licensure examinees

DATA SCIENCE PROJECTS

- **Electricity Demand Forecasting**
  Applied statistical methods and machine learning techniques such as ARIMA and Gradient Boosting Regressors in the Philippine electricity demand data to accurately forecast the day-ahead electricity demand in the Luzon Power Grid.
- **Data-driven Policy Making in the Education Sector**
  Employed network science, natural language processing, and time series forecasting methodologies to gain actionable insights to future-proof the education sector with respect to the emerging job markets
- **Electricity Theft Detection**
  Employed a Convolutional Neural Networks-based time series classification algorithm to identify customers with potential electricity theft using on the historical day-to-day electricity consumption data and achieved a model accuracy of 93%.

OTHERS

Languages: Filipino, English

Software / Technical Skills:

Python – Numpy, Pandas, Matplotlib, Seaborn, Scipy, Scikit Learn, Tensorflow, Keras, Dask, Apache Spark, Selenium, NetworkX, NLTK, GenSim, Scikit Image, OpenCV, PostGIS, OSMNx
Cloud Computing – AWS
Database Technologies – SQL
Web Development Technologies – HTML, CSS
Other Technologies – Git, MATLAB, Tableau, ETAP, SAP ERP, MS Office

Professional Development:

Advanced MS Excel Workshop for Professionals
Cybersecurity Certification Course
Kepner-Tregoe Analytic Troubleshooting Course
Effective Business Writing Workshop

Specific Other Relevant Skills or Experiences:

Business Management – Business Model Development; Financial Management; Operations Management; Strategy; Digital Marketing; Design Thinking
Project Management – Engineering, Procurement and Construction (EPC); Contracts Management; Change Management
Electrical Engineering – Power Systems Design, Modelling, Analysis; Economic Dispatch Optimization

Interests: Musical theatres