



A licensed mechanical engineer and licensed master plumber. Familiar with ASHRAE, UPC, ASME, ASTM, JPI and JIS industrial standard. Have thorough knowledge in pipeline route and profile design; piping drawings including section and plan drawings, isometric drawings, P&ID and PFD; have diversified exposure in 3D model, design and machining of mold assembly; knowledgeable in industrial robot programming, installation and commissioning; have knowledge in data science and computer programming.

Technical Skills:

✓ Piping/Pipeline Design	✓ Robotics
✓ Plastic Mould Design	✓ Manufacturing
✓ HVAC Design	✓ Data Science
✓ Catia V5: CATVBA	✓ AutoPIPE/ MicroStation
✓ AutoCAD: AutoLISP	✓ Python3/ SQL Database/ MATLAB
✓ Unigraphics NX11/ SolidWorks	✓ RobotStudio: Rapid

WORK EXPERIENCES

Nissan Motors K.K. • Kanagawa, JP • Jan 2019 – Present

MECHANICAL ENGINEER (POWERTRAIN PRODUCTION DIVISION)

Responsible for machine design and robot program changes. Provides support in creation of automated reports using VBA and other programming language as required.

Executed the following job functions:

- Create reports by performing manufacturing data analysis and on-site inspection
- Improve production cycle time by analyzing and modifying robot programs
- Analyze manufacturing defects and recommend solutions
- Create 2D/3D drawing of parts design
- Documentation

Technical Skills: Karel/Python/Java/VBA, Data Science

REASON FOR LEAVING: Professional growth and career advancement

Applicot K.K. • Kanagawa, JP • Sep 2018 – Jan 2019

COMBUSTION ENGINEER (ENGINEERING DEPARTMENT)

Responsible for direction, coordination, implementation and control of projects related to flare system, burner and incinerator.

Executed the following job functions:

- Determine project schedule by studying project plan and specifications; calculating time requirements; sequencing project elements
- Maintain project schedule by monitoring project progress; coordinating activities; resolving problems
- Controls project plans by reviewing design, specifications, and plan and schedule changes; recommending actions
- Checks designs and coordinates with manufacturers and various vendors
- Documentation

Technical Skills: Project Management, Manufacturing and Technical Understanding, MS Project

REASON FOR LEAVING: Pursue career in design/robotics engineering

ABB K.K. • Tokyo, JP • Jul 2017 – Sep 2018

FIELD SERVICE ENGINEER (ROBOTICS AND MOTION DIVISION)

Responsible for painting and sealing system using ABB robots. Handles system configuration and troubleshooting of ABB Robots and equipment in the field. Provides system integration support of ABB robots to designated build shops as well as the end user.

Executed the following job functions:

- Creation of prototype models or simulated systems for painting and sealing robots
- Robot program and changes such as logic and path alterations through either online or offline method
- Conduct tests or experiments requiring selection and adaptation or modification of equipment and procedures.
- Direction, analysis and reports of test projects
- Robot system installation, commissioning and troubleshooting
- Documentation

Technical Skills: Rapid/Python, Linux, Networking, RobotStudio, Robview, Shopfloor

REASON FOR LEAVING: Professional growth and career advancement

JFE Techno Manila, Inc. • Pasig City, PH • Dec 2014 – Mar 2017

MECHANICAL ENGINEER (PIPELINE SECTION)

Responsible in the preparation of alignment sheet (pipeline route and profile planning), station piping drawings (plan, section and isometric drawings) and detail design including material take-off.

Executed the following job functions:

- Piping space design, stage design, support and nozzle detail drawings, equipment layout and MTO
- Pipeline route and profile design based on customer requirements, specification, and industrial code and standard (ANSI, ASME, JPI, JIS, etc.)
- Determine steel shapes, structural connections and welding symbols
- Creation of AutoPIPE model, pipe loading, displacement, and stress analysis report
- Creation of mechanical equipment and structural drawings
- Interpret piping symbols, equipment symbols, and basic instrumentation symbols.
- Represents group in internal meetings, update work related manuals and documents, and conduct work related seminars

Technical Skills: AutoCAD, AutoPIPE, MicroStation, AutoLisp, Excel VBA

REASON FOR LEAVING: Career advancement in a more challenging environment.

MANLY PLASTICS, INC. • Malabon City, PH • Jun 2014 – Nov 2014

MOLD DESIGN ENGINEER (MOLD DESIGN DEPARTMENT)

Responsible in preparing precision mold design including material selection, CAD drafting, detail product drawings and BOM's.

Executed the following job functions:

- Directly involved in mold manufacturing from material preparation through to completion
 - Coordinated with the toolmaker to verify the inserts, pins, fixtures, and components and prepared necessary reports to ensure quality before assembly
 - Coordinate development with engineers and technicians on the team mentoring as needed
 - Work with customers for development projects as well as product troubleshooting
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Technical Skills: AutoCAD, Pro-E, CNC/EDM, GD&T

REASON FOR LEAVING: Career advancement in a more challenging environment.

EDUCATION

Bachelor of Science in Mechanical Engineering
TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES | Quezon City, PH
2008 – 2013

LICENSES AND CERTIFICATES

Registered Mechanical Engineer
PROFESSIONAL REGULATION COMMISSION | License 0085915

Registered Master Plumber
PROFESSIONAL REGULATION COMMISSION | License 0008104

Autodesk Revit MEP 2016
MICROCADD INSTITUTE | Certificate 1BRSGQ14B3

Deep Learning Specialization
COURSERA | Certificate 8HVN2UAFZXP9

TensorFlow Developer Professional Certificate
COURSERA | Certificate XKP2X9WQT7FQ

Machine Learning with Python
COURSERA | Certificate AHUMC4ZAJNF6

Data Analysis with Python
COURSERA | Certificate H5CGBXMZBP89

Data Visualization with Python
COURSERA | Certificate 7E97KH88UGV9

Database and SQL for Data Science
COURSERA | Certificate M96W96NFB7C5

Python for Data Science and AI
COURSERA | Certificate T36DZU9VX5HX

LANGUAGES

ENGLISH
Professional Working Proficiency

FILIPINO
Native Speaker with Full Working Proficiency

JAPANESE
Basic with Limited Working Proficiency

OTHER SKILLS

- **CatiaV5/SolidWorks/UG-NX11/Autodesk Inventor**
Can create part drawing model and assembly. Can utilize Finite Element Analysis and relative simulations. Knowledgeable in Catia VBA programming.
- **Autodesk Revit MEP**
Knowledgeable in Building Information Modeling, HVAC calculations, defining volume, defining work sets, import/export settings, etc.
- **PLC programming**
Knowledgeable in ladder logic, HMI development, interlocks, alarms and notifications.
- **CNC Programming/Operation**
Can perform machining setup and simple manual G-code programming. Knowledgeable in CNC lathe and sink EDM.
- **MATLAB**
Knowledgeable in MATLAB programming. Proficient in working with vectors, matrices, graph and graph plotting, data importing, and MATLAB mathematics.
- **NI Multisim**
Knowledgeable in analog or digital circuits design, analysis, and spice modeling.
- **Microsoft Office**
Proficient in Microsoft Word, Excel, Project and PowerPoint. Knowledgeable in VBA programming.

TRAININGS AND WEBINARS ATTENDED

PLC Programming
Udemy

HVAC Design, Installation & Maintenance
MEPFS Engineer Review

Multi-Discipline Design: Reducing Risks, Improving Collaborations, and Winning Projects
Engineering News-Record & Bentley

Construction Quality and Safety: Reducing Rework while Achieving Zero Incidents and Accidents
Engineering News-Record & Procore

Five Questions to Ask When Selecting a New Project Management System
Engineering News-Record & Procore

PM in Theory - Improving Quality Using Six Sigma Concept
Project Insights

Introduction to SimCenter for Predictive Engineering Analytics
Engineering 360 & Siemens

CompTIA A+ / Crptography / CompTIA Security+
Cybrary

PERSONAL INFORMATION

Full Name: Facunla, Rafael Sumang

LinkedIn: <https://ph.linkedin.com/in/rafaelfacunla>

Date of Birth: January 15, 1991

Nationality: Filipino

Age: 30

Height: 165 cm

Weight: 60 kg

Civil Status: Single
