

# Luis Caezar Ian Panganiban

## Software Engineer

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**Github** lkpanganiban

Amenable Cloud Developer gifted at translating basic client requirements into technical development plans. Communicates productively with both technical and non-technical personnel and clients. Friendly provider of deep programming knowledge and invaluable final products.

## Work History

2023-10 –  
Present

### Co-Founder and Chief Technology Officer

Ausome Company, Manila, Philippines

- Technical Lead: Main lead in technology-related decisions about infrastructure, product development, and software development practices of the company.

2023-04 –  
2023-10

### Chief Trainer and Application Advisor

Iraya Energies Sdn Bhd, Kuala Lumpur

- Trainer: Train internal personnel and enterprise customers on building and using the company's products and services.
- Software Engineer: Provide advisor and support in deploying the company's products and services to enterprise environments.

2019-04 –  
2023-04

### Head of Cloud Infrastructure

Iraya Energies Sdn Bhd, Kuala Lumpur

- Technical Lead: Managed a team of developers and data scientists to implement deliverables given user requirements and customer objectives.
- Solution Architect: Created development workflow and deployment strategies for clients and enterprises on cloud-based, hybrid, and on-prem environments.
- Software Engineer: Worked on backend APIs that deal with knowledge extraction using search and location-based workflows.
- Data Engineer: Developed and deployed various backend processing systems which deal with machine learning, on-demand processing, and distributed computing using various technologies like Python, Airflow, Kubernetes, PostgreSQL, and others.
- Data Scientist: Developed algorithms and workflows to implement Extract-Transform-Load of various structured (spreadsheets and databases), semi-structured (JSON, XML), and unstructured (images, office formats).
- Infrastructure Engineer: Developed and maintained various Azure-based development and production environments. Implemented packaging and distribution systems using Docker, Kubernetes, and Gitlab CI/CD.

2017-04 -  
2019-03

### Geoscience Data Scientist

Iraya Energies Sdn Bhd, Kuala Lumpur

- Data Scientist: Developed, deployed, and maintained various processing algorithms and pipelines that deal with extracting and analyzing various datasets, both structured and unstructured which became a core functionality of primary product.
- Software Engineer: Developed, deployed, and maintained data mining software that extracts knowledge from websites like Science Direct, EAGE, SPE, etc.
- Infrastructure: Developed, deployed, and maintained company cloud infrastructure (Google Cloud) that deals with processing and analyzing unstructured data.

2017-11 -  
2018-03

### **Technical Consultant**

Geospectrum Marketing Services, Quezon City

- Solution Architect: Analyzed client business processes to propose optimal software applications for unique requirements.
- Software Engineer: Developed technical requirement documentation for new software products.

2017-09 -  
2017-12

### **WebGIS Developer**

PHL, Microsat, Quezon City

- Software Engineer: Developed backend APIs for distributing satellite images using various technologies like Django, PostgreSQL, Numpy, GDAL.

2017-04 -  
2017-09

### **WebGIS Developer**

UP-TCAGP, Quezon City

- Software Engineer: Developed and deployed Web-based Geographic Information System of Sugar Regulatory Administration Yield Estimation System for Sugarcane (SRA YESS) Project.
- Data Engineer: Implemented data loading system that handled ingestion into SRA-YESS WebGIS.

2015-08 -  
2015-12

### **WebGIS Developer**

FilGeosolutions, Quezon City

- Software Engineer: Developed and deployed a WebGIS Tool for Visualizing Elevation Profiles for Pasil B and C Hydroelectric Power Plant Construction Project in Kalinga and Ifugao.

2014-04 -  
2017-04

### **Science Research Specialist II**

UP-TCAGP, Quezon City

- Software Engineer: Developed backend processing and distribution that leverages geospatial data like satellite images, road networks, and survey data.
- Infrastructure Engineer: Developed, deployed, and maintained IT infrastructure that handles processing and distribution of geospatial data.
- Survey Personnel: Conducted field works gathering spatial data like bathymetric and tidal velocity profiles.

## Achievements and Certifications

- Machine Learning – Coursera
- Microsoft Certified: Azure Fundamentals
- INSEAD – Leadership Communication with Impact
- Python for Data Science and AI - Coursera
- Introduction to Relational Databases (RDMS) – Coursera
- Introduction to Data Engineering - Coursera
- Databases and SQL for Data Science - Coursera
- Relational Database Administration (DBA) – Coursera
- Hands-on Introduction to Linux Commands and Shell Scripting - Coursera
- ETL and Data Pipelines with Shell, Airflow and Kafka - Coursera

## Technologies

Programming Languages <ul style="list-style-type: none"><li>• Python</li><li>• Java</li><li>• C++</li><li>• Javascript/NodeJS</li><li>• Golang</li></ul>	Infrastructure and DevOps <ul style="list-style-type: none"><li>• Gitlab CI/CD</li><li>• Azure DevOps</li><li>• Jira</li><li>• Ansible</li><li>• Azure</li><li>• Google Cloud</li><li>• Linux</li></ul>
Web Frameworks <ul style="list-style-type: none"><li>• Django</li><li>• Flask</li><li>• Express</li><li>• Fast API</li></ul>	Data Science and Machine Learning <ul style="list-style-type: none"><li>• Numpy</li><li>• Pandas</li><li>• Geospatial Tech (rasterio, geopandas, shapely, gdal)</li><li>• Airflow</li><li>• Kafka</li><li>• PyTorch</li></ul>
Database Technologies <ul style="list-style-type: none"><li>• PostgreSQL</li><li>• Elasticsearch</li><li>• MongoDB</li><li>• Redis</li></ul>	

## Publications

### Scaling and Optimizing Performance and Cost of Machine Learning Ingestion on Unstructured Data for Subsurface Applications

Luis Caezar Ian Panganiban, Nina Marie Hernandez, Francois Baillard

83rd European Association of Geoscientists and Engineers Annual Conference and Exhibition, June 2022

### Extract Value from your Unstructured Geoscience Data

Luis Caezar Ian Panganiban, Nina Marie Hernandez, Francois Baillard, Kim Gunn Maver

ResTech 2020, April 2020

### **An Automated Information Retrieval Platform for Unstructured Well Data Utilizing Smart Machine Learning Algorithms within a Hybrid Cloud Container**

Nina Marie Hernandez, Patrick Jay Lucanas, Juan Carlos Graciosa, Luis Caezar Ian Panganiban, Carl Yu, Kim Gunn Maver

First EAGE/PESGB Workshop on Machine Learning, November 2018

### **Elasticdocs as an Automated Information Retrieval Platform for Unstructured Reservoir Data Utilizing a Sequence of Smart Machine Learning Methods within a Hybrid Cloud Container**

Nina Marie Hernandez, Patrick Jay Lucanas, Luis Caezar Ian Panganiban, Charmyne Mamador, Carl Yu

European Association of Geoscientists and Engineers Conference on Reservoir Geoscience, January 2018

### **Development of a Multi-Site and Multi-Device WebGIS-Based Tool for Tidal Current Energy Development**

Ma. Rosario Concepcion Ang, Luis Caezar Ian Panganiban, Charmyne Mamador, Oliver Dan De Luna, Michael Bausas, Joselito Cruz

23rd International Society for Photogrammetry and Remote Sensing Congress, July 2016

### **PhilSHORE Tool: A Web-Based Marine Spatial Planning Tool**

Ma. Rosario Concepcion Ang, Luis Caezar Ian Panganiban, Charmyne Mamador, Oliver Dan De Luna, Michael Bausas, Joselito Cruz

36th Asian Conference on Remote Sensing, October 2015

### **WebGIS Tool for Visualizing Elevation Profiles for Pasil B and C Hydroelectric Power Plant Construction Project in Kalinga, Ifugao**

Charmyne Mamador, Luis Caezar Ian Panganiban

36th Asian Conference on Remote Sensing, October 2015

### **PhilSHORE: Development of a WebGIS-Based Marine Spatial Planning Tool for Tidal Current Energy Resource Assessment and Site Suitability Analysis**

Ma. Rosario Concepcion Ang, Luis Caezar Ian Panganiban, Charmyne Mamador, Oliver Dan De Luna, Michael Bausas, Joselito Cruz

World Academy of Science, Engineering and Technology, International Science Index, Geological and Environmental Engineering, May 2015

### **Evaluation of Point Positioning Accuracy of GPS-Enabled Android Devices**

Romalyn Boado, Ivy Elaine Cadalzo, Brent Niko Dargantes, Ervin Fredrick Dy, Kevin Angelo Gonzales, Charmyne Mamador, Luis Caezar Ian Panganiban

Philippine Geomatics Symposium 2013

### **Evaluation of Pan-sharpening Techniques for Crop Delineation**

Ivy Elaine Cadalzo, Brent Niko Dargantes, Ervin Fredrick Dy, Charmyne Mamador, Luis Caezar Ian Panganiban

Philippine Geomatics Symposium 2013

## **Education**

2009-06 -  
2014-04

## **Bachelor of Science: Geodetic Engineering**

University of The Philippines Diliman - Quezon City Philippines

- 2014 Programmer of the Year