

# Jansen Marson Ang

Software Engineer, Tech Community Leader, Speaker, Trainer and Open-Source Contributor

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## OBJECTIVE SUMMARY

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- Aspiring Machine Learning Engineer with a robust background in software engineering and a passionate commitment to leveraging data science and machine learning. Adept at applying my extensive software development experience, including Python, Java, and cloud technologies, to build and optimize intelligent systems.

## PROFESSIONAL EXPERIENCE

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- **Maya Philippines Inc.** Software Engineering Specialist  
*Launchpad Building, Sheridan St., Mandaluyong City, Philippines* *January 2022 - July 2023*
  - Utilized AWS Athena, RedShift, and DataBricks for data extractions and investigations, aiding the data engineering team in data ingestion tasks.
  - Implemented database optimizations to enhance performance and reduce costs, improving overall efficiency.
  - Co-authored and helped implement a CI/CD pipeline in GitLab, transitioning from manual Jenkins deployment, resulting in faster delivery times and reduced operational load.
  - Investigated and resolved production bugs, ensuring the stability and reliability of the Maya Business product.
  - Technologies and tools used: Java, Python, Spring Boot, AWS (S3, Lambda, SQS, EC2, Fargate, EKS, ElastiCache, API Gateway, DynamoDB, Rekognition, CloudWatch), GitLab CI/CD pipelines, Postman, Docker, Kubernetes.
- **IBM Solutions Delivery Inc.** Application Developer - Java Full Stack  
*UP Ayala TechnoHub, Quezon City, Philippines* *September 2021 - January 2022*
  - Developed and enhanced features using Restful web services and Batch job processes.
  - Engaged in modernization of client project from legacy to modern Java and cloud technologies.
  - Technologies and tools used: Spring Boot, Apache Kafka, Java 8, Gradle, Docker, OpenShift, Postman, Git, Gitlab.
- **Edusuite Inc.** Software Engineer  
*Alabang, Muntinlupa City, Philippines* *September 2020 - September 2021*
  - Involved in full stack development and testing of an AI-driven school management system.
  - Created front-end components, RESTful API endpoints and collaborated on machine learning components.
  - Technologies and tools used: Spring Boot, Java 8, Deeplearning4j, Angular 6, Typescript, AWS, PostgreSQL, Machine Learning, IntelliJ, VS Code, Postman, Git, Gitlab.
- **Oracle Philippines Corporation** Consultant  
*Bonifacio Global City, Taguig City, Philippines* *July 2019 - September 2020*
  - Developed and retrofitted codes using Java with Oracle Utilities Application Framework.
  - Investigated moderate to complex defects, performed root-cause analysis and applied fixes to these issues using technologies such as Java, JavaScript, AJAX, Oracle Database, PL/SQL, SOAP, XML, XPath.
  - Technologies and Tools used: Hibernate, Maven, Eclipse IDE, Sublime Text editor, Tortoise SVN, Oracle Weblogic, Oracle SQL Developer, Oracle Cloud, Oracle Integration Cloud, SOAPUI, Postman.
- **Canon Information Technologies Philippines** Software Engineer  
*Eastwood City, Quezon City, Philippines* *Aug 2018 - Mar 2019*
  - Developed applications integrated with AWS services and PostgreSQL, focusing on backend development and cloud-based solutions.
  - Participated in extensive training in Java, Python, and Software Engineering principles.

## EDUCATION

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- **University of Santo Tomas** Manila, Philippines  
*Bachelor of Science in Computer Science* *Jul. 2014 - Jun. 2018*  
*Dean's Lister for two semesters with an overall GWA of 1.76*

## FELLOWSHIP AND PERSONAL PROJECTS

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- **PWD Upskilling and TESDA Educator Assistance Project:** Developed an AI-driven platform to enhance employment opportunities for Persons with Disabilities (PWDs) in the Philippines. Utilized Python, Scikit-learn, Pandas, NumPy, NLTK, SpaCy, BERTopic, OpenAI, and LangChain for data analysis and model development. Implemented topic modeling to identify key skills for PWDs and developed a recommender engine using Retrieval Augmented Generation (RAG). Deployed a dual-component solution consisting of a course recommender for PWDs and a lesson plan generator for educators on a Streamlit web application.
- **DiabetesGPT and Analysis:** Developed an ML model for early diabetes prediction which involved extensive data preprocessing and exploratory data analysis using Python libraries (Pandas, NumPy, Scikit-Learn). Applied machine learning techniques with an emphasis on model evaluation metrics such as Recall and f-beta score. Utilized resampling techniques like SMOTE-ENN for model optimization. Performed hyperparameter tuning using Bayes Search. SHAP analysis was conducted to interpret model predictions. Integrated OpenAI and LangChain for the chatbot feature. Deployed on Streamlit Cloud, enabling CSV data input and interactive prediction features.
- **Hale Success Analysis and Recommender Engine:** Analyzed Hale's music using Spotify API, focusing on replicating the success of one of their hit songs. Conducted EDA on Hale's discography, identifying key trends and popular tracks. Developed a recommender engine using Python, Scikit-learn, Pandas, Numpy, and Seaborn. Engine types include feature-based, genre-based, and sentiment-based recommendations. XGBoost and ExtraTrees being the top performing models. Used cosine similarity of audio features for recommendations. Deployed the final application on Streamlit Cloud, providing tailored song recommendations.
- **MindSpeak:** Created a smart mobile app predicting anxiety via mood analysis and sentiment extraction from diary entries. Utilized Android - Java for the front-end, while employing Miconaut, AWS services (SageMaker, Comprehend, API Gateway, S3, Lambda, RDS - PostgreSQL, SES, ECR), ECS - Fargate, and Docker for the backend. Employed XGBoost as the machine learning model, hosted on AWS SageMaker.

*Note: For additional projects and details, please visit my website at [jansenang.tech](https://jansenang.tech).*

## OPEN SOURCE CONTRIBUTIONS

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- **Langchain4j** September 2023 - Present  
*Contributor*
  - Implemented a document loader to read and load documents from Amazon S3, addressing the needs of numerous users utilizing AWS for their document storage.
  - Actively engaged in bug fixing and updating libraries, focusing on maintaining CVE security standards to enhance the overall reliability and safety of the software.

## CERTIFICATIONS/ASSESSMENTS

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- AWS Certifications:** Developer Associate (Sep 2022), Solutions Architect Associate (Aug 2022), Cloud Practitioner (Sep 2022)
- Microsoft Azure Certifications:** Azure Fundamentals (Dec 2022), Azure AI Fundamentals (Dec 2022), Azure Data Fundamentals (Dec 2022), Security, Compliance, and Identity Fundamentals (Dec 2022)
- Oracle Certifications:** Machine Learning using Autonomous Database (Feb 2022), Cloud Infrastructure Data Management Associate (Aug 2022), Cloud Infrastructure Foundations Associate (2021 and 2022)
- Other Certifications:** Philnits IT Certification (Top 2 nationwide, 2018)

## FURTHER EDUCATION

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- **Eskwelabs** Online  
*Data Science Fellowship* *Sept - Dec 2023*
- **Udacity** Online  
*AWS Machine Learning Engineer Nanodegree* *Jun 2023 - Jan 2024*

## COMMUNITY ENGAGEMENT

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- **Java User Group PH Leader, Speaker and Co-Organizer:** Co-leader and co-organizer of the Java User Group Philippines.
  - Spoke at the 5th meetup, where I discussed langchain4j, the Java version of the open-source library langchain. I continue to be an active contributor to the project.
- **Women in AI Masterclass 2023 Participant Moderator:** Served as a participant moderator, contributing to the facilitation of the online program by assisting students and ensuring the seamless delivery of content.