JOMARIS BANUA

[Email](#) | [GitHub](#) | [LinkedIn](#) | San Jose, CA

EDUCATION:

California State University, East Bay, Hayward, CA USA (3.7 GPA)   **Expected Dec 2025**
Master of Science, Statistics focused on Data Science
Dongguk University, Seoul, Korea (3.9 GPA)   **Feb 2021**
Master of Engineering, Chemical Engineering
Saint Louis University, Baguio City Philippines (3.4 GPA)   **May 2015**
Bachelor of Science, Chemical Engineering

SKILLS:

- **Programming Languages:** Python, R, SQL
- **Machine Learning & AI:** TensorFlow, PyTorch, scikit-learn, Keras, XGBoost, NLP, Computer Vision, LLM, DistilBERT, Transformers
- **Data Analysis & Visualization:** Pandas, NumPy, Power BI, Matplotlib, Seaborn, Tableau
- **Frameworks & Tools:** Flask, Docker, Kubernetes, Git/GitHub, REST APIs, FastAPI,

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SOME PROJECTS:

Predictive Modeling for Salary Data Analysis

- Developed a machine learning model to predict employee salaries based on parameters such as experience, education level, job role, and industry.
- Used Python, scikit-learn, and XGBoost for model training and Pandas for data preprocessing. Built a random forest model .
- Enabled data-driven salary benchmarks and optimizing resource allocation. Deployed a Flask-based API for real-time salary predictions and analysis.

Grading with AI: Automation Essay Scoring using Transformers

- Built an automated essay scoring system using pre-trained transformer models (DistilBERT) to evaluate textual quality and predict human-assigned scores.
- Preprocessed over 12,000 essays including cleaning, lemmatization, and removal of outliers to ensure model robustness.
- Engineered custom features (text length, lexical diversity, readability) to complement transformer-based embeddings.
- Trained and fine-tuned regression models (Linear Regression, Ridge, XGBoost) achieving high R^2 performance across multiple essay prompts.
- Developed a modular and scalable pipeline for real-world education applications, reducing manual grading workload while maintaining fairness and accuracy.

YouTube Trending Video Analysis (US)

- Analyzed a dataset of trending YouTube videos in the US to identify patterns in viewership, engagement, and content strategy
- Used Python (Pandas, NumPy, Seaborn, Matplotlib) to clean and process structured JSON data, including video metadata such as title, tags, publish time, category, likes, and views
- Visualized trends in audience engagement over time, identifying which upload times, categories, and title styles correlated with higher performance
- Identified optimal title/description lengths for ~2.5M view range.
- Explored creator behavior and patterns that contribute to virality, including frequency of uploads and title formatting

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EXPERIENCE:

Project Manager | CNUSHR (Mountain View CA)   **Feb 2021 – Dec 2023**

- Led and managed over 10 research projects, ensuring timely completion and adherence to client requirements, resulting in a 20% increase in client satisfaction scores.
- Developed a standardized project management framework, reducing project turnaround times by 25%.
- Enhanced data analysis accuracy by 30% through optimized research methodologies, directly contributing to the publication of 5 peer-reviewed papers.

Graduate Research Assistant | Dongguk University (Seoul, Korea)   **Mar 2019 – Feb 2021**

- Conducted 12+ research projects in nanotechnology, resulting in 2 peer-reviewed publications in leading journals.
- Collaborated with a team of 5 researchers, optimizing experimental design and reducing lab analysis time by 20%.
- Presented findings at 3 academic conferences, contributing to increased research visibility and academic recognition.

Lead Chemist | Destileria Limtuaco & Co Inc   **Jun 2017 – Jan 2019**

- Managed quality assurance for 100+ batches of raw materials and finished products, ensuring compliance with FDA regulations, resulting in zero compliance violations over 18 months.
- Developed and validated 5 new analytical methods for testing, cutting testing time by 25% and enhancing data accuracy.
- Led laboratory operations and training for 3 junior chemists, boosting team efficiency by 30%.
- Enhanced product formulation processes, achieving 10% cost savings through optimized ingredient usage.

Analytical Method Specialist | Am-Euro Pharma   **Mar 2016 – Jun 2017**

- Developed and validated 10+ analytical methods for FDA registrations, reducing approval times by 20% through optimized testing protocols.
- Led method optimization projects, improving testing efficiency by 25% and enhancing accuracy of pharmaceutical analysis.
- Conducted 50+ validation studies, ensuring compliance with regulatory standards and minimizing error rates by 15%.
- Collaborated with cross-functional teams to integrate new analytical techniques, resulting in 30% faster product release times.
- Streamlined lab procedures, reducing reagent usage by 10%, leading to cost savings.