

Gissella Gonzalez

ggonza18@gmu.edu - <https://github.com/gichelli> - <https://www.linkedin.com/in/gissellagonzalez/> - U.S. Citizen

EXPERIENCE

Machine Learning Engineer & MLOps Consultant

Gichelli AI Solutions (Contractor) · January 2025 - Present

- Deliver end-to-end MLOps and machine learning lifecycle solutions for clients in the finance and technology sectors, including model development, deployment, and monitoring.
- Design, develop, and deploy scalable ML models with automated CI/CD pipelines using Azure DevOps and GitHub Actions.
- Build and manage Azure Kubernetes Service (AKS) clusters for containerized ML workloads, ensuring scalability and reliability.
- Collaborate with data engineering and analytics teams to integrate data preprocessing, feature engineering, and model deployment workflows using Databricks and Azure Data Lake.
- Develop and maintain ML pipelines for real-time and batch inference using Python, PySpark, and SQL.
- Leverage MLflow for experiment tracking, model versioning, deployment, and monitoring across environments.

Machine Learning Engineer / MLOps Engineer

Synthetics: December 2023 – December 2024

- Maintained a Bayesian optimization and active learning framework for chemical process optimization, reducing experimental efforts by up to 5x while improving outcome quality.
- Supported diverse variable types (continuous, categorical, timeseries, chemical) to enable multiobjective optimization across up to 15 objectives with custom constraints.
- Built scalable, modular, fully typed, tested, and serializable Python packages, ensuring robustness and easy integration with APIs and databases.
- Applied advanced hyperparameter tuning and surrogate modeling (including CatBoost, XGBoost) for high-dimensional chemical process optimization; integrated Retrieval-Augmented Generation (RAG) systems using LangChain and VectorDB to enhance documentation querying and team productivity.

Data Engineer

CaliberMind: September 2022 – July 2023

- Automated ETL pipelines using Python, PySpark, and SQL to process large-scale marketing and sales data.
- Built ML pipelines with MLflow for model training, tracking, and deployment.
- Optimized BigQuery schemas and query performance, reducing data processing times by over 40%.
- Designed scalable data pipeline patterns using GCP services including Dataflow, Cloud Functions, and BigQuery.
- Monitored and maintained production data workflows using Airflow and custom alerting systems.

Cloud Data Engineer

Consumer Financial Protection Bureau: September 2021 – September 2022

- Led the development of Databricks ETL pipelines to migrate and centralize on-premises data into AWS.
- Optimized cloud resources for ML and analytics workloads.
- Implemented automated backups, disaster recovery, and monitoring (RDS, EFS, CloudWatch)
- Created and managed IAC using CloudFormation.
- Trained and deployed ML models using AWS SageMaker.

DevOps Engineer

Ablevets LLC: December 2019 – September 2021

- Automated deployments with CI/CD pipelines using GitOps and AWS.
- Created and configured an enterprise scalable and highly available cloud-native Kubernetes cluster on AWS infrastructure.
- Orchestrated scalable systems with Kubernetes and Docker.

- Developed a Deep Learning prediction tool on AWS SageMaker to forecast Jenkins build remediation time using historical data.
- Key engineer in developing CI/CD solution for a mission critical health data platform.

Information Technology Specialist

Mercado Aguacate Hass: 2013-2018

- Designed and implemented custom Docker infrastructure to optimize deployment and scalability.
- Designed and developed company website using AWS tools.
- Integrated secure payment solutions, ensuring seamless transactions and improved user experience

EDUCATION

George Mason University - The Volgenau School of Engineering

B.S: Computer Science - 2019

M.S: Computer Science; concentration in Artificial Intelligence – In progress

Hawaii Pacific University - B.S: International Studies – 2004

CERTIFICATIONS

AI Trading Strategies (2025), AI (2024), MLOps (2023), Deep Learning (2021), Data Science (2021) – Udacity

3D Animation - Boston University Center for Digital Arts – 2009

SKILLS

Data Science & Machine Learning: PyTorch, TensorFlow, Scikit-Learn, Pandas, NumPy, Spark, Databricks, Jupyter, Plotly, TensorFlow, Matplotlib, GAN, VAE, ETL, Bayesian Optimization, NLP, Computer Vision, RAG, LLMs, Deep Learning, Transfer Learning, GPT, Diffusion Models, Reinforcement Learning, Generative AI Models, OpenAI, Hugging Face, MLFlow, Kubeflow, Weights & Bias, Sagemaker, Vertex AI

DevOps & Cloud: Kubernetes, Helm, Docker, Rancher, Jenkins, Terraform, GitOps, GitHub Actions, DVC, GoCD, AWS (SageMaker, RDS, CloudFormation), GCP (Kubeflow, BigQuery, DataFlow, Vertex AI), Airflow

Security: Tenable, Twistlock, Fortify, Malware Analysis, Key Management, Disaster Recovery Solutions, SageMaker Model Monitor, Prometheus, Grafana, AppDynamics, New Relic, DataDog

Databases: DynamoDB, RDS, SQLite, PostgreSQL, SQL, Oracle, MongoDB, MariaDB, VectorDB, BigTable, Stable Diffusion, MidJourney, DALL-E, Tacotron, WaveNet, Whisper, Hugging Face Transformers, Diffusers library

Languages: Python, R, BASH, PySpark, Java, Node.js, C

LANGUAGES

English, Spanish: Fluent