

Gavin Abrigo

(408)-888-8732 | abrigogavin05@gmail.com | [linkedin.com/in/gavinabrigo](https://www.linkedin.com/in/gavinabrigo) | gavinabrigo.com
MLOps, Data Engineering, AI Engineering, Project Management, Agentic Tools

EDUCATION

University of California Merced

Bachelor of Science in Computer Science & Engineering

Merced, CA

May 2027

TECHNICAL SKILLS

Languages — TypeScript, JavaScript, GoLang, Java, Python, C/C++, HTML/CSS, LaTeX, MIPS Assembly, SQL, PostgreSQL, MATLAB, SPARQL,

Technologies — Shell, React.js, FastAPI, REST APIs, Git, GitHub, Node.js, Next.js, Vite, StreamLit, Nvidia NIM, Tesseract, OpenCV, Docker, PyTorch, Pandas, Excel, SQLite, CI/CD, Git, MongoDB, Flask, JSON

EXPERIENCE

ML/AI Engineer Intern

January 2026 - Present

BART - Software Engineering Capstone

Merced, CA

- Architecting a Python-based computer vision and multimodal AI pipeline to automatically classify infrastructure incident images submitted via email/mobile, generate structured metadata, and route to appropriate maintenance teams
- Developing image embedding and similarity detection workflows (YOLOv8) to de-duplicate submissions, extract contextual location data, and improve automated ticket routing accuracy while reducing manual review overhead.

Undergraduate Researcher

September 2025 - Present

LLM Knowledge Graph Retrofitter (KGR) - Prof. Pandey

Merced, CA

- Building a Python-based Knowledge Graph Retrofitting (KGR) and Retrieval-Augmented Generation (RAG) pipeline using Wikidata and SPARQL to improve factual accuracy and reduce hallucinations in NLP models.
- Fine-tuning entity linking systems (spaCy) and evaluating LLM verification performance (ChatGPT, LLaMA-3, DeepSeek) with NLP metrics such as exact match and F1 on benchmark datasets.

Software Engineer Intern (backend)

January 2025 - March 2025

OculusIO (NFT Automation Software Startup)

Remote

- Developed Bash and TypeScript CLI automation tools to streamline multi-language builds, integrating Go protobuf generation and client compilation—cutting setup time by 65% and build errors by 40%.
- Implemented cross-platform environment validation scripts for Windows, macOS, and Linux, standardizing workflows and improving developer onboarding efficiency across a 6-person team.

PROJECTS

[NYC Taxi Trip Duration Regression and Digit Classification](#) | *Python, Scikit-learn, Pandas* | Oct 2025 - Dec 2025

- Building and evaluating classification and regression models across MNIST, Taxi Trip Duration, and Credit Card Fraud datasets.
- Predicting total ride duration of taxi trips in New York City, Fraudulent transaction classification, and MNIST multidigit classification
- Implemented logistic regression with hyperparameter tuning, a reusable data-preprocessing module, XGBoost with 5-fold stratified cross-validation, feature visualization, and outlier-cleaning pipelines to predict total NYC taxi trip durations and classify fraudulent credit card transactions.

[Fleet-AI | NVIDIA AI Agent Hackathon](#) | *Nvidia NEMO, Python, StreamLit* | July 2025

Designed a smart fleet management dashboard powered by Python for real-time data and AI interaction.

- Built a real-time system for data visualization and AI-driven validation of fleet performance metrics.
- Data acquisition from simulated sensors and integrated live feedback with AI interaction.
- Optimized test routines for responsiveness and reliability, reflecting hardware-software co-design principles.