

# JEAN NAUDE

[jnaude60512@gmail.com](mailto:jnaude60512@gmail.com) | <https://linkedin.com/in/jean-naude/> | <https://github.com/twigglits>

---

## SUMMARY

Senior Machine Learning Engineer with 4 years of experience delivering production-level ML models for a major retailer. Former Co-founder of a non-profit that developed open-source epidemiology simulation software used by the World Health Organization.

My strength lies in rapidly deploying observable, impactful models that drive key business decisions in their organizations. I enjoy taking on difficult problems and developing solutions at a rapid pace whilst maintaining measurable and observable improvement in automation, optimization and model accuracy. I enjoy working with hardworking people who want to get results fast, can communicate effectively, and are open to feedback so that decisions can be made and improvements can be implemented.

Strong hands-on MLOps experience: designing GitLab CI/CD pipelines with clear build/test/deploy/release stages and integrated vulnerability scanning (dependencies, containers, and IaC), implemented automated retraining and deployment pipelines, and monitoring on Grafana/cloud monitoring for data drift with structured logging, alerting, and model explainability/score attribution using SHAP (Shapley values). Experienced in deploying and scaling Kubernetes clusters, and selecting pragmatic serving patterns on GCP (Cloud Run/Vertex AI/Pub Sub) and AWS (Bedrock/Sagemaker) depending on latency, cost, and operational overhead.

---

## EXPERIENCE

### Machine Learning Engineer — Spatialedge

Jun 2021 – Present

- Served as Technical Lead Engineer on two enterprise data applications providing optimized results in retail and financial sectors
  - Mentored junior engineers and provided technical guidance to engineering teams while directing project execution and establishing the technical foundation for both projects
  - Productionized and contributed to 8 machine learning models including Lead Time Forecasting, Demand Forecasting, and Interbranch Transfers Optimization in the Retail sector. And ATM replenishment forecasting and optimization in the Financial Sector
  - Contributed development to various credit scoring models in the Financial sector, and mentored 5 junior engineers on software engineering best practices and approaches
  - Developed Workforce Planning Optimization and Cash Replenishment Forecasting enterprise-grade data applications
  - Implemented CI/CD pipelines using GitLab and GCP with Terraform for infrastructure automation
- 

## SKILLS

**Tools:** Claude Code, MCP tool setup, agent orchestration, testing frameworks, playwright, Claude Code agent orchestration pipelines, Generative AI workflows and orchestration

**Languages & Frameworks:** Python, C++, SQL, JavaScript, TypeScript, Ruby, Bash, C

**ML & Data Science:** PyTorch, Scikit-Learn, TensorFlow, Time Series Forecasting, Machine Learning, Computer Vision

**Infrastructure & DevOps:** GCP, Azure, Docker, Kubernetes, Terraform, CI/CD, Airflow, Dagster, Helm, Git, Linux

**Databases & Systems:** PostgreSQL, BigQuery, Redis, CUDA, GraphQL, Crow API

---

## EDUCATION

### ESIEE PARIS — Master's of Science in Computer Science

2019-2021

### Pearson Institute — Bachelor's of Science in Information Technology

2015-2018

---

## PROJECTS

### VISS (Viral Infection Simulation Subsystem)

[github.com/twigglits/viss](https://github.com/twigglits/viss)

- Engineered first open-source Viral Infection Simulation Subsystem providing valuable insights to the World Health Organization
- Implemented backend using Redis DB, C++, and Crow API with CUDA acceleration for high-performance epidemiological modeling
- Developed modular frontend using React and TypeScript with CSS Tailwind for interactive simulation visualization

### Spatialedge Analytics DF Auditor

[pypi.org/project/spatialedge-analytics-dfauditor](https://pypi.org/project/spatialedge-analytics-dfauditor)

- Created DataFrame auditing and validation tools for machine learning pipeline quality assurance
  - Published Python package to PyPI for broader community use in data science workflows
-

## CERTIFICATIONS

### **Python for Data Science and Machine Learning Bootcamp — 2025**

<https://www.udemy.com/certificate/UC-1fcc8e47-b153-45b2-b43b-7c117e1fd2db/>

### **Time Series Analysis, Forecasting and Machine Learning — 2025**

<https://www.udemy.com/certificate/UC-a567a1fa-c83a-43d9-82ff-df5cdacb4d5e/>

### **Data Science and Machine Learning Bootcamp with R — 2019**

<https://www.udemy.com/certificate/UC-65MDQ02B/>

### **React - The Complete Guide 2025 (incl. Next.js, Redux) — 2025**

<https://www.udemy.com/certificate/UC-acdec4cd-ae82-4216-9cd3-212d2e0a63ee/>

### **Calculus 1 — 2019**

<https://www.udemy.com/certificate/UC-37U23IL1/>