

Jesse Wood

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SUMMARY

Senior Developer and Data Engineer with 6+ years of experience designing, building, and running production data pipelines, microservices, and automation systems. Sole technical owner of an enterprise data platform, responsible for architecture, development, deployment, stakeholder engagement, and technical documentation across 30+ production systems. Results include \$850K+ in revenue leakage prevented and 19+ FTE hours saved daily. Primarily working in Python, SQL, Snowflake, FastAPI, Docker, Kubernetes, and applied AI/ML. Background in customs brokerage and logistics operations.

TECHNICAL SKILLS

Languages	Python, SQL
Data	Snowflake, SQL Server, Redis, Pandas, ETL pipeline design
AI / ML	OpenAI API, LangChain, RAG pipelines, ChromaDB, NER ensembles, vision-language models
Infrastructure	Kubernetes (AKS), Docker, Azure (Key Vault, Blob Storage), KEDA, Git/GitHub
Frameworks	FastAPI, SQLAlchemy, Pydantic, spaCy, Transformers (HuggingFace)

PROFESSIONAL EXPERIENCE

Senior Developer, Data & Analytics — DHL Express Canada 2022 – Present
Remote / Hamilton, ON

- Designed and built a **customs entry automation pipeline** with AI tariff classification (RAG + LLM). Multi-source ingestion across 100+ importer accounts, sub-15-minute processing. **9.0 FTE annualized savings**.
- Built **ML and AI microservices** in production: a multi-signal classification ensemble (**94.97% accuracy** on 10,000+ ground truth data points) and a vision-language model extracting 90+ fields from commercial documents.
- Created an **ETL framework** powering 30+ automated workflows, integrating cloud data warehouse, relational databases, SFTP, and legacy mainframe sources.
- Automated **high-volume operational workflows**: shipment assignment (saving **19+ FTE hours daily**), document uploads (485K+ processed), and refund claims. Prevented **\$850K+ in revenue leakage**.
- Led migration of all production services to **Azure Kubernetes Service (AKS)**, managing 20+ deployments and supporting infrastructure.
- Built internal web applications (FastAPI, JWT auth) including admin dashboards and customer-facing portals.
- Achieved **maximum performance ratings every year** from 2022–2025. Manager-recommended for promotion to Technical Program Manager.

Systems Analyst, Brokerage — DHL Express Canada 2020 – 2022
Remote / Brampton, ON

- Reduced automated shipment profiling failures by **13%** by auditing rule logic and resolving system issues across the customs automation platform.
- Built **work distribution and exchange rate maintenance tools**, eliminating manual tasks and saving 12+ FTE hours per day while reducing compliance incidents.
- Maintained and optimized datasets, SQL queries, and internal data models for customs clearance operations.
- Developed automated workflows for duty classification, document processing, and mainframe data integration.
- Provided system training to internal users and external customers on customs automation tools.

LVS Customs Analyst — DHL Express Canada 2018 – 2020
Remote / Brampton, ON

- Evaluated shipments for tax and duty using harmonized tariff codes, valuation methods, and trade agreements.
- Handled billing, credits, and customer disputes with high accuracy and service quality.
- Supported development of a **write-off reduction project** later adopted as a permanent workflow, saving **over \$2 million** in its first year.

Shipper / Warehouse — RONA 2012 – 2018
Hamilton, ON

- Coordinated preparation and shipment of construction materials in a distribution facility. Order fulfillment, forklift operation, and inventory management.

SELECTED PROJECTS

Customs Entry Automation - Full pipeline: multi-source ingestion, AI tariff classification (RAG + LLM), automated field transformations, distributed tracing, and multi-destination output. 20,000+ entries generated; 100+ importers onboarded.

Entity Classification Service - Multi-signal weighted ML ensemble for organization vs. person classification. 94.97% accuracy on 10,000+ ground truth samples. FastAPI microservice on Kubernetes.

Distributed Manifest Processing - Distributed ETL with Redis queue, KEDA auto-scaling (0–20 replicas), worker heartbeat recovery, and cloud data warehouse staging. Processes facility data across 20+ service centers.

Vision-Language Document Extraction - VLM service extracting 90+ structured fields from commercial documents (PDF/TIFF) using GPT-4.1 vision with adaptive resolution and multi-page chunking.

Legacy Mainframe Integration - Bridge between legacy mainframe and modern data infrastructure. 30+ automated report extractors delivering to cloud data warehouse, relational database, and file-based formats.

EDUCATION & CERTIFICATIONS

Professional Program in Data Science

Open University of the Netherlands (DHL Incompany Program) | 2022 – 2023 | 280 hours | Grade: 8.3/10

Regression, clustering, ensemble methods (XGBoost, Random Forest), NLP, neural networks, PCA, cross-validation, Python/Jupyter.

Diploma in International Trade

Sir Sandford Fleming College, Peterborough, ON | 2013 – 2016

Certified Customs Specialist (CCS)

Canadian Society of Customs Brokers | 2019 – 2025