

# NELLIE CORDOVA



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## SUMMARY

ML Engineer / Software Engineer with graduate-level ML/DL/NLP training and 2+ years of production experience in microservices, testing, and CI/CD. Hands-on with end-to-end ML systems (multimodal, RAG, sequence models). Bring strong experiment design, testing discipline, and networks/OS fundamentals.

## SKILLS

Languages: Python (primary); Java, SQL (past production use); R, C++ (academic).

ML / Data: PyTorch, scikit-learn, pandas, NumPy, Transformers, CNNs/RNNs/LSTMs, text classification, language modeling.

MLOps / Systems: Git, CI/CD (Jenkins, Maven), REST/JSON APIs, testing (JUnit, Cucumber), Docker, Linux.

Tools & Other: Jupyter, Matplotlib, Postman, SOAP UI, JMeter, IntelliJ, VS Code, JIRA, Bitbucket, Confluence; bilingual (English/Spanish)

## PROFESSIONAL EXPERIENCE

**Software Engineer** | JPMorgan Chase & Co. | Tampa, FL

06/19 - 10/21

- Contributed across the SDLC for Java payment microservices, Kafka-based real-time payments platform, from requirements through production deployments and readiness.
- Authored runbooks (architecture, failure modes, remediation steps) and supported monitoring/alerting, enabling faster triage and smoother on-call handoffs.
- Coordinated with global teams on regulated releases, compiling test evidence and presenting services to production management.
- Built automated tests (JUnit, Cucumber); upheld CI quality gates (tests, static analysis, coverage) to keep merges green; executed functional/perf tests (Postman, SOAP UI, and JMeter) reduce release risk.
- Led and participated in agile ceremonies (sprint planning, backlog refinement).
- Delivered Salesforce data collection/reporting features (Visualforce, Flows) end-to-end—requirements, design, implementation, UI enhancements, and automated survey creation.

**ML Research Assistant** | Computer Science Department | William Paterson University | Wayne, NJ

03/18 - 05/19

- Analyzed behavioral survey data in Python/R (EDA, feature engineering), defined predictive tasks/metrics, and compared models (KNN, logistic regression, clustering); presented findings to faculty and students.

## ML PROJECTS

- RAG Service with Guardrails:** FastAPI-based retrieval-augmented generation service over JSONL docs, combining hybrid search, structured prompting for LLM answering, self-checks, rule-based guardrails, typed Pydantic request/response contracts, with latency-aware evaluation and planned Dockerized API.
- Plate2Recipe – Multimodal CV + NLP:** Co-developed end-to-end system mapping food images to structured recipes using PyTorch and Hugging Face (vision backbone + GPT-2/LSTM). Handled dataset cleaning and evaluation of output coherence and ingredient coverage.
- Key-Value Memory Network QA:** Implemented a PyTorch KV-MemNet over a structured KB with batched attention; generated synthetic templated QA with distractors and evaluated retrieval precision and answer accuracy.

## EDUCATION

**M.S., Computer Science (Machine Learning)** | Georgia Institute of Technology | Atlanta, GA

09/22 - Present

Relevant Coursework: Deep Learning, NLP, Reinforcement Learning, Network Science, Computer Networks, Operating Systems, HCI.

**B.A., Mathematics (Minor: Computer Science)** | William Paterson University | Wayne, NJ

09/16 - 05/19

Honors: Magna Cum Laude | Pi Mu Epsilon (National Mathematics Honor Society)

## CERTIFICATIONS

**AWS Certified AI Practitioner** | Amazon Web Services (Oct 2025)

**Group 2: Social/Behavioral Research** | CITI Program (2024-2027)