NELLIE CORDOVA

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SUMMARY

Software Engineer transitioning to ML; hands-on DL/NLP/RL and production experience on microservices payments. Strong in experiment design, hyperparameter tuning, and metrics-driven iteration; systems & networking exposure (gRPC/Protobuf); delivered features end-to-end.

EDUCATION

M.S., Computer Science (Machine Learning) | *Georgia Institute of Technology | Atlanta, GA* **09/22 – Present**
Relevant Coursework: Natural Language Processing, Deep Learning, Reinforcement Learning, Network Science, Human-Computer Interaction.

B.A., Mathematics (Minor: Computer Science) | *William Paterson University | Wayne, NJ* **09/16 – 05/19**
Honors: Magna Cum Laude
Relevant Coursework: Data Warehouse & Data Mining, Database Management System, Business Analytics, Applied Regression Analysis, Statistical Computing, Cloud Computing.

PROFESSIONAL EXPERIENCE

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

Project: Real-Time Payments Platform **06/19 – 10/21**

- Contributed across the SDLC (requirements to deployments) for Java-based payment microservices and to production readiness; implemented monitoring/alerting; authored runbooks; partnered with platform teams; presented services to global production management groups.
- Built and maintained test automation (JUnit, Cucumber); participated in code reviews and upheld CI quality gates (tests, static analysis, coverage) to keep merges green; executed functional/perf tests (Postman, SOAP UI, and JMeter); collected release evidence (test/coverage reports, change tickets, approvals) to secure production sign-off.
- Led/participated in agile sprint planning and backlog refinement; authored technical/architecture docs; coordinated across time zones.

Project: Salesforce **09/19 – 06/20**

- Delivered data collection/reporting features (Visualforce, Flows) for a social-impact org; gathered requirements; designed, implemented, and documented changes; enhanced a custom Visualforce UI and automated survey creation.

ML Research Assistant | *Computer Science Department | William Paterson University | Wayne, NJ* **03/18 – 05/19**

- Applied exploratory data analysis and knowledge discovery to augment prior hypothesis-driven work on teen tanning behaviors for the project '*The WPU YRBS Data Mart*'.
- Implemented and evaluated predictive models (KNN, Logistic Regression, clustering) in Python/R; presented insights to faculty and student.

PROJECTS

- **Plate2Recipe – Multimodal CV + NLP:** Co-developed end-to-end system mapping food images into structured recipes: ViT for ingredient recognition + GPT-2/LSTM for instruction generation; data cleaning/augmentation on large-scale datasets; evaluated output coherence – *Tech: PyTorch, Hugging Face Transformers/Datasets, ViT, GPT-2, LSTM.* [https://github.com/cordovank/Plate2Recipe] [Report]
- **Attention-based QA model:** Implemented KV-MemNet for single-hop QA with batched attention; built evaluation harness (accuracy, confusion cases) and data pipeline with distractor generation – Tech: PyTorch, NumPy, pandas; attention/memory networks. [https://github.com/cordovank/GT-NLP/tree/main/5-KVMemNet-QA]
- **Adaptive Notification System:** User-researched and user-tested interactive prototype to redesign notification workflows for engagement and usability; iterated and improved flows via survey and heuristic feedback – Methods/Tech: HCI/UCD, survey design, prototyping, usability testing. [Report]

SKILLS

- **ML/NLP:** PyTorch, scikit-learn, NumPy, pandas; NLTK, spaCy, Gensim; Transformers (ViT, GPT-2), CNNs, RNN/LSTM; tokenization & embeddings (GloVe/CBOW/Skip-Gram); text classification & language modeling; attention/memory networks; GPT-2 fine-tuning
- **Data & Evaluation:** Experiment design, hyperparameter tuning, cross-validation; metrics (F1, perplexity, RMSE); visualization/reporting (Matplotlib)
- **MLOps/Backend:** REST/gRPC, Kafka; Docker; CI/CD (Jenkins, Maven); testing (JUnit, Cucumber); Postman, SOAP UI, JMeter; logging/monitoring (Geneos)
- **Languages/Tools:** Python (primary), Java, SQL; Git, IntelliJ, JIRA, Bitbucket, Confluence; Jupyter/Anaconda
- **Other:** English & Spanish (bilingual)