Luis Norman

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PROFESSIONAL SUMMARY

Current graduate student at DePaul University studying Computer Science and specializing in Real-Time Systems and Data Science. Experienced in building real-time systems, predictive systems, distributed systems, and web applications. Also equipped with an array of skills to optimize and modernize existing code and take on novel projects.

EDUCATION

DePaul University **Chicago, Illinois**

- Major: Master of Science in Computer Science
- Specializations: Real-Time Systems and Data Science
- Graduation Date: June 2021
- Cumulative GPA: 3.89/4.00

Purdue University Northwest **Hammond, Indiana**

- Major: Bachelor of Science in Computer Engineering
- Minor: Computer Science
- Graduation Date: May 2018
- Major GPA: 3.31/4.00

EXPERIENCE

Silverwork Solutions Chicago, IL

Software Engineer – Full Time May 2018 – July 2019

- Developed scalable and highly available software products to automate the mortgage loan process.
- Sped up legacy code by redeveloping monolithic applications into microservices for faster execution.
- Built tools to monitor the status of computer clusters and generate daily operational analytics.

PROJECTS *(Can be found at Github.com/LuisNorman)*

- **Dow Jones Industrial Average (DJIA) Closing Price Prediction System**
  - **Objective:** Predict if the DJIA closing price will decrease or increase from the opening price based on that day's top 25 blog post headlines on Reddit's World News subcategory (r/WorldNews).
  - **Approach:** Created a sentiment analyzer that determines the sentiment of the headlines and then ran multiple methods on those sentiment labels to create models that predict the behavior of the DJIA closing price.
  - **Tools Used:** NLP, SVM, Logistic Regression, Decision Trees, Naïve Bayes, Gradient Descent

- **Blockchain**
  - **Objective:** Create processes that communicate, compete, and work together to mine blocks and add to ledger.
  - **Approach:** Implemented a program that starts processes which reads in block records and multicast their block records to other participating processes (peers) to begin attempting to mine the block(s). The process that mines the block adds it to the ledger and peers verify if the newly added block is valid.
  - **Tools Used:** Inter-Process Communication, Cryptography

- **Movie Recommendation Web Application**
  - **Objective:** Recommend movies based on similar movies the user has rated and their similar users.
  - **Approach:** Built a system that recommends movies that have the highest predicted ratings based on the target user's top K similar users. The system also recommends movies that are most similar to the target user's highly rated movies.
  - **Tools Used:** Collaborative Filtering (User-Based & Item-Based), Pearson Correlation, KNN, Flask

Technical Skills

- **Programming Languages:** C++, Java, Python, Scala, C#, HTML, CSS
- **Knowledgeable Areas:** Real-Time Systems, Machine Learning, Distributed Systems, Web Development, Networking
- **Tools Recently Used:** Multithreading, Inter-Process Communication, Blockchain, Recommender Systems, Django, TCP/UDP, Unix