LUIS NORMAN

Lanorman14@gmail.com
LuisNorman.com

PROFESSIONAL SUMMARY

Graduate student at DePaul University studying Computer Science and specializing in Real-Time Systems and Data Science. Adept at building real-time multithreaded systems, predictive systems, distributed systems, and web applications. Experienced in analyzing and optimizing existing software that exhibits performance issues related to processor caching, data layout, unintended compiler interactions, and more.

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: 3.83/4.00

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

Relevant Coursework: Real-Time Multithreaded Architecture, Optimized C++, Distributed Systems, Real-Time Networking, Programming Machine Learning Application, Intelligent Information Retrieval, Applied Algorithms and Structures

EXPERIENCE

Silverwork Solutions Chicago, IL

Software Engineer – Full Time May 2018 – July 2019

- Developed scalable and highly available software services to automate the mortgage lending process.
- Refactored a monolithic system into a service-oriented architecture leading to a 4x speed increase and resilience.
- Built tools to monitor and recover nodes (machines and services) in a distributed system.
- Created and automated daily reports of service transactions and other key performance metrics (KPI's) that were delivered to company stakeholders.

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

- **Custom Memory System**
  - **Description:** Implemented a memory manager that replaces the standard library memory manager which resulted in a 350% speed increase in release mode.
  - **Tools Used:** C++

- **Blockchain for Medical Records**
  - **Description:** Created a program that starts processes forming a distributed system that then begins to compete with each other across the network to mine and verify blocks (medical records) before being added to the ledger.
  - **Tools Used:** Inter-Process Communication, Cryptography, Multithreading, Peer-to-Peer Networking, Java

- **Movie Recommendation Web Application**
  - **Description:** Built a web application that recommends movies that have the highest predicted ratings based on the target user's rated movies and those of their top K similar users.
  - **Tools Used:** Collaborative Filtering (User-Based & Item-Based), K-Nearest Neighbors, Flask, Python

TECHNICAL SKILLS

- **Programming Languages:** C/C++, Java, Python, Scala, C#, JavaScript, HTML, CSS
- **Distributed Systems:** Inter-Process Communication, Cryptography, Transparency, Mobile IP, Superservers
- **Real-Time Systems:** Threads, Handles, Inter-Thread Communication, Callbacks, Design Patterns
- **Machine Learning:** Prediction Modeling, Intelligent Information Retrieval, Recommender Systems
- **Web Development:** Rest API's, React, Django, Node.js
- **Other:** SIMD Intrinsics, Boost, MapReduce, Hot/Cold Data Structures, Profiling, UML, Continuous Integration