Luis Lascano

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Professional Experience

AI Software Developer Intern, *Sabadell Bank - Miami Branch* ⬈ May 2024 – present | Miami, USA
- Project 1: Developed an AI based API ⬈ for converting manually inputted postal address entries to ISO-20022 Hybrid standard address backed by Attention Mechanisms, and Tokenization through Google's BERT.
- Augmented the existing address data using Google's GeoCoder API.
- Networked Docker images containing FastAPI and Nginx for express deployment and service lifting.
- Reformatted 10k+ postal addresses with my custom built Python based FastAPI.
- Project 2: Developed a Java based AI Automaton ⬈ crawler to capture and parse manually inputed data from Excel given some approximate cell order into XML.
- Parsed 1000 client credit analysis Excel Forms into XML structured directories in less than 20 minutes runtime (vs. 60 hours manual work) using Java concurrent threads.
- Created a user-friendly field-escaping tool for future Excel forms to Database migrations.
- Found critical inconsistencies between T24 (backend) and Credit Department documents using XSD verification.

Machine Learning Teaching Assitant, *Georgia Tech* ⬈ Jul 2023 – Dec 2023 | Atlanta, USA
- Transformed course assignments from static 2-D to dynamic 3-D interactive plotly visualizations resulting 25% increase of student engagement.
- Used Anaconda and Pycharm to recreate 4+/week common student bugs
- Provided class-wide online live feedback to clarify corresponding theory.
- Graded 1000+ ML questions, 30+ QA Online replies, hosted 3 hours weekly in-person technical office hours.
- Mentored 4 Machine Learning Final Course projects.

Education

B.S. Computer Science, *Georgia Institute of Technology* ⬈ Dec 2023 | Atlanta, USA
- **Concentrations:** Artificial Intelligence, Modelling, and Simulations
- **Affiliations:** GT Society of Hispanic Professional Engineers (SHPE)

Skills

Languages — Java, C, Python, JavaScript, ARM Assembly, SQL, **Technologies** — PyTorch, TensorFlow, Sci-kit, Pandas, Matplotlib, NumPy, Docker, Anaconda, JupyterLab, GitHub, React, MySql, Plotly, JSON, GeoJSON, OpenCV, BERT, CSS, D3.js, Tableau, PySpark, LaTex, Stable Diffusion, GCC (GNU Compiler Collection), LLM (Large Language Models), Linux, Maven Projects, JUnits, **Relevant Courses** — Data Structures, Computer Networking, Adv. Algorithms, Computer Vision, Robotics, Web Dev, OOP, Combinatorics, Operative Systems, Processor Architecture, Transformers, Reinforcement Learning, Machine Learning, Deep Learning, Data Visual Analytics, Automata Theory

Projects

Wine Recommendation Tool, *Deep Learning Final Project* ⬈ Sep 2023 – Dec 2023
- Developed a Deep Learning-based Wine Recommendation Tool by engineering a GRU-based NN architecture. Incorporated BERT embeddings for preprocessing and utilized pyTorch layers to construct a generative model with inputs tokenized word-space and output space a selection of over 300 wine types.
- Achieved 83% train accuracy and 70% test accuracy, showcasing the model's robustness and effectiveness in real-world scenarios.

GTSam Cloud Point Processing, *Autonomous vehicle navigation* Oct 2022 – Dec 2022
- Built a cloud point processing + route planning model with GTSam (Python) toolbox capable of reconstructing a map of the environment using a 360 Lidar and a Camera.

Movie Recommendation Analysis, *SVD prediction with Vector Analysis* Apr 2023
- Developed a movie recommendation analysis pipeline integrating a software prediction method based on previous population behavior and rating using PCA.
- Leveraged tensor broadcasting through NumPy to enhance processing efficiency, achieving a remarkable RMSE of 1.0166.

Atlanta Crime Data Analytics, Nov 2021 – Dec 2021
Police Station Location vs Crime Reports ⬈
- Conducted Atlanta crime data analytics, utilizing a K-means optimization clustering model with a multi parameter (distance + crime-type) kernel.
- Identified optimal police station locations that would result in a 31% reduction in crime proximity plus grouping of crime-types. Processed using PySpark engine.