Jonathan Latim

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Summary

Results-driven Data Engineer & AI Scientist with a multi-disciplinary background, including master's degrees in Data Science, Aerospace Engineering, and an MBA. Proven ability to design, implement, and optimize data pipelines for diverse business needs. Experienced in collaborating across teams, from data analysts to research scientists, to deliver actionable insights and scalable AI solutions. Adept at leveraging cloud technologies (GCP, AWS) and programming languages (Python, R, SQL) to extract value from complex datasets and drive informed decision-making. Passionate about applying AI to solve real-world problems and drive positive impact.

Education

Master of Science in Data Science, 2024, GPA 4.0/4.0
University of Miami, Coral Gables, FL

Master of Business Administration, 2019, GPA 3.56/4.0
University of Miami Business School, Coral Gables, FL

Master of Science, Aerospace Engineering, 2016, GPA 4.0/4.0
Embry-Riddle Aeronautical University, Daytona Beach, FL
Thesis topic: "Turbulence Control in Wall Jets."

Bachelor of Science in Aerospace Engineering, 2014, GPA 3.4/4.0
Embry-Riddle Aeronautical University, Daytona Beach, FL

Certifications

Cloud Computing: Google Cloud Associate Cloud Engineer • AWS Certified Cloud Practitioner (CLF)
Project Management: PMI Agile Certified Practitioner (PMI-ACP) • Certified Associate in Project Management (CAPM) • Six Sigma Green Belt

Work Experience

Interdisciplinary AI Scientist, **U-Link AI, University of Miami | Miami, Florida | 2024 - Present**
- Developed and deployed an AI assistant with a retrieval-augmented generation (RAG) framework that enhances large language models (LLMs) used in order to support interdisciplinary research and collaboration.
- Developing interactive AI agents and contribute to training workshops to facilitate knowledge exchange and communication among researchers.
- Collaborating with faculty, students, and postdocs to install and use the AI prototype in order to generate feedback that can be used to enhance the prototype. This improves its accuracy and usability.

Data Engineer, **American Family Insurance Company | Remote | 2020 - 2023**
- Designed and implemented data pipelines, facilitating the extraction, transformation, and loading of large datasets into a centralized data warehouse.
- Collaborated with cross-functional teams to develop ETL processes, supporting data migration from On-Prem to Google Cloud Platform (GCP).
- Created data models for business requirements and implemented ETL workflows to ensure data quality and accuracy.
- Conducted performance tuning on database queries optimizing data storage for cost-effectiveness.
- Collaborated with data analysts, providing valuable data insights to drive decision-making.
- Implemented manual and automated data quality checks, identifying, and resolving data quality issues.

***Global Wealth & Investment Management Analyst Intern,* Merrill Lynch | Miami | 2018 - 2018**
- Researched, analyzed, and evaluated new investment opportunities as well as the performance of current solutions.
- Assisted financial advisors in relationship management, client follow-up, administration, and business development.
- Managed client inquiries, coordinated with specialists and service centers to deliver an integrated service to the client.

Skills & Technologies
- Cloud Platforms: GCP (Cloud Storage, Big Query, Cloud Composer/Airflow), AWS (S3, Lambda, Step Functions, Athena)
- Programming Languages: Python (NumPy, Pandas, PySpark, PyTorch, TensorFlow, Scikit-learn, Keras), R, SQL
- Artificial Intelligence: Machine Learning, Deep Learning (DNN), LLMs, LangChain
- Data Visualization: Tableau, Power BI, Matplotlib, Seaborn, ggplot2
- Version Control: Gitlab
- Project Management Tools: Jira, Confluence
- Methodologies: Project Management & Agile, Leadership & Communication

Projects
COVID-19 Diagnosis using CT Images with Transfer Learning (PyTorch)
- Developed a 2D Convolutional Neural Network (CNN) for COVID-19 diagnosis from CT scans, achieving over 90% accuracy on the test set.
- Constructed the CNN model by modifying ResNet-18 or ResNet-50 architecture for binary classification.
- Implemented both training from scratch (random weights) and transfer learning (pretrained weights) approaches, comparing their performance.
- Visualized the trained models using two Class Activation Mapping (CAM) methods (e.g., GradCAM, EigenCAM) to understand the model's decision-making process.
- Utilized PyTorch framework for model development and data handling.
- Leveraged code and resources from GitHub repositories for CAM implementation.

Rock-Paper-Scissors Game Development
- Developed a fully functional Rock-Paper-Scissors game in Python, incorporating user interaction, game logic, and outcome evaluation.
- Implemented functions for human player input, computer player strategy (random or weighted random choice), and game result determination.
- Designed a game loop to manage the game flow, including player choices, outcome judgments, and game record updates.
- Employed a dictionary structure to maintain a comprehensive game record, including human and computer choices and outcomes.
- Explored the potential of applying temporal pattern recognition principles to Rock-Paper-Scissors, recognizing its significance in machine learning, artificial intelligence, and data compression.

Tic-Tac-Toe Game Implementation
- Developed the classic game tic-tac-toe in Python i.e., Human Vs Computer
- Implemented functions to draw the game board, check for available spaces, determine if the board is full or empty, and update the board with player moves.
- Created a human player interface (HumanPlayer function) to handle user input and validate their choices.
- Designed a computer player algorithm (ComputerPlayer function) that employs strategic thinking to make optimal moves, considering both offensive and defensive strategies.
- Developed a judging mechanism (Judge function) to evaluate the game state after each move and determine the outcome (win, loss, or tie).
- Implemented a game logic (TicTacToeGame function) that orchestrates the entire gameplay, including player turns, move validation, and outcome determination.