Gilberto Arellano Lopez

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EDUCATION

Chapman University | Orange, CA   *May 2024*
Bachelor of Science – Software Engineering, Minor: Analytics
Relevant Coursework: Machine Learning, Database Management, Data Structures, Software Principles & Design, Business Analytics, Operating Systems

TECHNICAL SKILLS

Programming Languages: C++, Python, R, Typescript, MySQL

Technologies & Skills:	NLTK, Feature Engineering	Next.Js, RESTful APIs
TensorFlow/Keras	AWS, Vercel	Jest, SonarQube
Pandas, Matplotlib	Unix/Linux, Git	

Spoken Languages: English – Fluent, Spanish - Fluent

PROJECTS

Natural Language Processing | Python, NLTK, WordCloud, TensorFlow/Keras, Data Visualization   *May 2023*
- Scraped and cleaned YouTube transcripts of Machine Learning lectures using Python.
- Fine-tuned a GPT model to mimic the lecturer's speech patterns, demonstrating transfer learning capabilities.
- Trained a local LSTM model using Keras as a comparison to the GPT model.
- Conducted a comparative analysis of the LSTM and GPT models, providing insights into their relative strengths and weaknesses for text generation tasks.
- Utilized NLTK for text tokenization and stop words removal, WordCloud for visualizing word frequencies, and Matplotlib for data visualization.
- Processed and transformed large datasets, ensuring suitability for machine learning applications.
- Developed data pipelines for scalable data processing and visualization.

Academic Advising Software Tool | TypeScript, React, Next.js, PostgreSQL, AWS EC2, Vercel   *May 2024*
- Developed a scalable academic advising tool with a responsive design, handling CRUD operations via RESTful APIs.
- Implemented robust unit and integration tests using Jest, with code quality monitored by SonarQube.
- Deployed the backend on AWS EC2 and the frontend on Vercel, ensuring seamless integration and high availability.

Sash Solutions - Window Quote/Estimate Calculator | C++, OOP, Software Documentation   *May 2023*
- Designed and developed a quote/estimate calculator resulting in a 90% reduction in quote calculation time and providing customers with a clear and comprehensive breakdown of the project cost.
- Created and maintain a comprehensive documentation website for the project, facilitating ease of use and future enhancements.

PROFESSIONAL EXPERIENCE

Operations and Technology Administrator | Gilberto Arellano Windows, San Francisco   *Jan 2012 - Present*
- Designed and developed a program written in C++ to calculate window quotes based on measurements, wood, glass, and window type, which reduced the quote calculation process by over 80%.
- Involved in systems design and development of safety-critical code.
- Created and maintain a CRM dashboard on Monday, project management software, to organize client projects, ensuring timely delivery and effective communication with clients.

Restaurant Co-Owner | La Capilla, Berkeley   *June 2016 - December 2019*
- Oversaw the day-to-day operations of restaurant generating $50-$60k monthly sales.
- Implemented inventory management and supply chain optimization techniques.
- Utilized QuickBooks Online to handle payroll and accounts payable, ensuring accurate and timely processing.
- Led and managed team, demonstrating strong leadership and operational management skills