

Alan Nguyen

Data Engineer

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SKILLS

Languages: SQL, Python, TypeScript, JavaScript, HTML, CSS, VBA

Databases/Cloud Platforms: PostgreSQL, Oracle, SQLite, AWS S3

Data Analysis Tools: Alteryx, Apache Airflow, Excel

Frameworks/Libraries: Chart.js, Pandas, Flask, SQLAlchemy, Sequelize, Alembic, Express, React, Redux, Socket.IO

EXPERIENCE

Treasury Card Analyst (Alteryx, SQL, Excel, VBA, Oracle)

Costco Wholesale Corporation

August 2019 - October 2022

- Leveraged **Alteryx** In-Database tool to optimize performance in **Oracle** by executing efficient **SQL** queries for filtering and joining tables, minimizing data transfer to accelerate Revenue Accounting reporting workflows by 10%
- Consolidated fragmented **ETL** processes across **VBA** and **Excel** into **Alteryx** by leveraging its parallel ETL capabilities and data validation features, resulting in the elimination of two ETL pipelines and an 80% reduction in overall work time
- Created comprehensive documentation of **ETL** processes, and data governance for PCI compliance, contributing to improved knowledge sharing within the team
- Collaborated with cross-functional teams, and external partners to gather and analyze requirements, ensuring alignment with data transformation needs and business objectives in an effort that increased card acceptance 10% YoY

Data Analyst (Excel, VBA)

The ICEE Company

August 2017 - July 2019

- Engineered and deployed **VBA** scripts integrating advanced data mapping and cleaning techniques for **ETL** workflow and reporting, culminating in a significant 20% reduction in weekly tasks
- Automated biweekly KPI reports with **VBA** to aggregate and present data insights to stakeholders resulting in 30% route efficiency

PROJECTS

SnowGlobe (TypeScript, React, Redux, Python, Flask, SQLAlchemy, Apache Airflow, ChartJS, HTML, CSS, SQLite)

dev | [github](#)

A project to inform user's making plans for ski destinations by tracking snow accumulation YoY at ski resorts

- Designed a scalable **Apache Airflow DAG** for daily ETL processes currently executing 5 parallel extraction tasks utilizing HttpOperator, XComs for downstream tasks, and SQLiteHook for loading
- Leveraged **SQL** scripts to perform data manipulations, strategically harnessing server-side database capabilities, with the aim of optimizing for large-scale data pulls and effectively reducing client-side bandwidth consumption
- Integrated a stateful application with **Redux** to take advantage of an autonomous daily **ETL** process ensuring an up to date dashboard utilizing **Chartjs** for data visualization

Gibberish (JavaScript, React, Redux, Python, Flask, SQLAlchemy, SocketIO, HTML, CSS, PostgreSQL)

[live](#) | [github](#)

A Slack-inspired website focused on simplicity and seamless user experience

- Enhanced **CRUD** operations by integrating **Socket.IO** with an event listener, ensuring efficient communication across the application
- Utilized DbSchema for **data modeling**, designing an optimized database schema that consolidated information, resulting in a single **Redux** state for 95% of the application and significantly enhancing overall application responsiveness
- Leveraged **React's** component-based architecture with React props and global context to reduce the amount of API fetching resulting in a seamless interaction across various UI segments

Mango Music (JavaScript, React, Redux, Python, Flask, SQLAlchemy, AWS S3, HTML, CSS, PostgreSQL)

[live](#) | [github](#)

An Apple Music-inspired website tailored around uploading music and creating personal playlists

- Successfully deployed a **PostgreSQL** database with multiple data schemas on Render.com connected to three web applications
- Optimize **AWS S3** resource utilization by implementing an audio player that employed a targeted GET request for albums/playlists and stored it in **React's** global context, mitigating excessive data retrieval
- Participated in daily Agile Scrums with a focus on driving project momentum by looking for road blocks, progress, and next steps, contributing to an earlier project completion of 2 days

EDUCATION

Full-Stack Web Development Program - App Academy | 2023

TLG Learning Certification - Data Analysis using Power BI Desktop | 2020

BS Mathematics - California State Polytechnic University, Pomona | 2016