JOSE ALONSO NUNEZ

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TECHNICAL SKILLS

- **Front End:** React, TypeScript, CSS,
- **Back End:** Python, SQL, C++
- **Data Engineering/Analytics**: R, Tableau
- **Developer Tools**: Git, VSCode, Microsoft SQL Server, AWS

EXPERIENCE

Software Engineer Intern, Middle Tennessee Electric   May 2024 — Aug 2024

Engineered key features for utility customer portal, implementing secure payment processing and usage monitoring dashboards while ensuring optimal performance and data security

- Architected and implemented responsive frontend features using TypeScript and React, resulting in a **40%** improvement in user interface load times and enhanced customer engagement metrics
- Maintained RESTful API endpoints and backend services to handle customer utility data, processing over **50,000** weekly transactions while maintaining **99.9% uptime**
- Collaborated with senior engineers to optimize database queries and implement data security measures, ensuring GDPR compliance for sensitive customer information
- Built automated testing suites using Jest and Cypress, achieving **85%** test coverage and reducing QA testing time by **30%**
- Participated in agile development practices including daily standups, sprint planning, and code reviews, consistently delivering features ahead of sprint deadlines
- Leveraged TypeScript's type system to reduce runtime errors by **60%** and improve code maintainability across the full-stack application

CURRENT PROJECTS

Data Bridge - Advanced ETL Pipeline: Excel to Redshift Data Warehouse Integration   Jan 2025

- Engineered asynchronous processing mechanisms with intelligent wait patterns using Python's time management and AWS SDK
- Implemented dynamic schema detection and data type mapping for automated Redshift table creation
- Developed robust error handling and retry logic for processing multiple worksheets concurrently
- Automated IAM role management and S3 event notifications for seamless file processing
- Built comprehensive logging and monitoring using CloudWatch for real-time pipeline visibility

Spotify Wrapped Plus+ | Full Stack Data Analytics Platform   Dec 2024

- Engineered ETL pipelines processing 50K+ data points from Spotify's Web API, implementing efficient batch processing and caching mechanisms to optimize API consumption
- Architected real-time data aggregation system using Node.js/Express.js, reducing data processing latency by 40% through optimized query patterns
- Designed and implemented data transformation algorithms for temporal pattern analysis, genre clustering, and user behavior analytics
- Developed responsive data visualization dashboard using React.js and Recharts, processing complex user listening patterns into actionable insights
- Built robust error handling and rate limiting strategies, ensuring 99.9% system reliability while managing high-volume API requests
- Implemented OAuth 2.0 authentication flow and data security measures to ensure secure handling of sensitive user data
- Created scalable backend infrastructure capable of handling concurrent user sessions while maintaining sub-second response times

EDUCATION

Middle Tennessee State University, Bachelors of Science, Data Science   Fall 2024