Philip Diegel

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Skills

Languages: Python, JavaScript, TypeScript, PHP
Web Development: HTML, CSS, React, Next.js, Figma
Database Management: SQL, Pyodbc, SQLite, MongoDB
Version Control: Git, GitHub
Libraries & Frameworks: Pandas, SQLAlchemy, NumPy, Node.js, Express, Tkinter

Experience

Software Engineer, Red Stake Surveyors, Inc. – Sarasota, FL 2019 – Present

- Engineered a Python-based system to automate and standardize the collection of ARCGIS county parcel data, reducing lookup times from over 10 minutes to around 5 seconds and enhancing data accessibility.
- Developed UI automation tools using Selenium, pandas, Tkinter, and SQL, integrated with Microsoft Access to increase productivity by up to 50% through streamlined operations.
- Overhauled the company's Microsoft Access database, optimizing primary keys and property addresses for faster, more accurate searches, and introduced new schemas and table definitions to reduce storage requirements.

Projects

Property Data Collector github.com/pdiegel/FloridaPropertyData

- Automated the collection and standardization of county parcel data in Florida, reducing data retrieval times by 95%.
- Implemented a scalable YAML configuration to streamline the addition of new counties, paired with a robust class design for data formatting that ensures uniformity and scalability.
- Enhanced data storage efficiency by converting CSV files into compressed gzip format using pandas, reducing local storage space by over 50% for each county data file, and improving data retrieval speeds, optimizing system performance.

Database Management Helper github.com/pdiegel/DatabaseManagementHelper

- Developed a comprehensive Python-based MVC application designed to streamline county property data management processes, significantly improving data retrieval speed and accuracy while reducing manual task time.
- Modularized the architecture using Tkinter for the UI, SQLAlchemy for database interactions, and pandas for data handling, enabling independent operation of each module while ensuring high cohesion and low coupling between components.
- Integrated robust error handling and logging mechanisms, coupled with unit testing using pytest, to ensure reliability and maintainability, achieving over 99% uptime.
- Implemented advanced data security measures using cryptography.fernet for encryption, effectively securing user data and eliminating incidents of unauthorized access.

Spirit Search spirit-search.vercel.app

- Designed and developed a React and Next.js based web application that leverages TheCocktailDB API for dynamic retrieval and display of cocktail recipes, significantly enriching user content discovery and interaction.
- Optimized front-end performance to achieve a 30% reduction in page load times through effective use of React's rendering capabilities and Next.js's server-side rendering features.
- Implemented adaptive responsive design using CSS media queries and Flexbox to ensure seamless display across various devices, leading to improved user experience, a 20% decrease in bounce rates, and increased user retention.

Education

State College of Florida, Manatee - Sarasota – AS in Computer Programming & Analysis August, 2024