**Charles Cowan**

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Lexington, OH

**Technical Skills:**

**Programming:** Python 3, JavaScript ES6+, SQL, HTML5, CSS, Java, C

**System design:** Microservices, Domain-driven-design, Event sourcing, Message passing

**Back-end:** PostgreSQL, Django 4, RabbitMQ, FastAPI, MongoDB

**Front-end:** React, React Hooks, Redux Toolkit, DOM manipulation, WebSockets

**Application Development Experience:**

[**MatchFynder**](https://gitlab.com/incognitoincredibles/module3-project-finder)  2023

An application to assist groups in finding a place to eat. Uses React, FastAPI, and Postgresql Docker containers

* Utilized React and Google API to get results/directions to facilitate restaurant search and arrival.
* Created dynamic PostgreSQL insert/select/update functions, streamlining database interactions.
* Implemented Websockets/Redux to manage data; creating a unique/real-time user experience

[**Wheeler Dealer**](https://gitlab.com/CharlesRay/wheeler-dealer) 2023

A microservice API for managing a car dealership. Combines vehicle service dept., sales dept., and inventory.

* Worked cohesively using domain-driven design to deliver a user-friendly interface to employees.
* Integrated multiple containerized APIs to present data on a React/JavaScript website for users.

[**Conference Convergence**](https://gitlab.com/CharlesRay/conference-convergence)2023

An application to manage conference events. Tracks presentations and attendees for each event.

* Translated a monolithic Django app into microservice Docker containers to facilitate expansion.
* Utilized RabbitMQ and PIKA to implement RPC protocols for communications between APIs.

**Professional Experience:**

**International Paper |** Maintenance Technician 2021-2022

* Diagnosed and repaired faults in complex manufacturing systems to reduce production stops.
* Conducted interviews with each machine operator weekly, and designed/constructed modifications to their machines to facilitate productivity and quality of life increases.

**Air Force |** Electrical Systems Craftsman 2012-2022

* Reviewed and designed electrical systems to ensure a balanced and functional electrical grid.
* Assessed and resolved errors in electrical systems to prevent further service interruptions.

**Education:**

**Hack Reactor,** *Advanced Software Engineering Certificate*  2023

**CCAF,** *64 credit hours in Electrical Engineering Technology/General* 2013-2018