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 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 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 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