JACOB NEWELL

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EDUCATION

Bachelor of Computer Science, Western Governors University   Expected Aug 2025
Relevant Coursework: Data Structures and Algorithms, Operating Systems, Advanced Data Management, Version Control, Discrete Math, Software Design and Quality Assurance

SKILLS

Languages: Java, Python, JavaScript, HTML, CSS
Frameworks/Libraries: Spring, Flask, Selenium, BeautifulSoup, MongoDB, Git, PostgreSQL, Django
Certifications: ITIL 4 Foundation, Linux Essentials

EXPERIENCE

Server   May 2023 - Present
The Boiling Crab   *San Marcos, CA*

- Delivered exceptional customer service in a fast-paced environment by accurately taking and fulfilling customer orders.
- Collaborated with team members to manage diverse roles, maintaining smooth operations during peak hours.

Assistant Director   Jan 2022 - Apr 2023
Chick-Fil-A   *Vista, CA*

- Ownership of the Back of House and Front of House Teams.

PROJECTS

Package Delivery Routing System   (Python)

- Built a logistics routing simulator in Python that applied a nearest-neighbor algorithm to efficiently deliver 40 packages under time, capacity, and address constraints.
- Developed a custom hash table for constant-time (O(1)) package lookups and modeled delivery components using clean object-oriented design.
- Optimized runtime performance and tested edge cases to ensure reliability and scalability under real-world delivery constraints.

Hotel Booking Platform   (Spring Boot, Angular, PostgreSQL, Docker)

- Enabled users to browse and reserve hotel rooms by building a full-stack application with Spring Boot REST APIs and an Angular frontend.
- Reduced page load times by ~50% by implementing multi threaded services for real-time currency conversion and language translation.
- Demonstrated deployment readiness by containerizing the application with Docker and integrating a PostgreSQL database for persistent storage.

Movie Rating Web App   (Python, Flask, SQLAlchemy, Flask-WTF, Bootstrap, TMDB API)

- Developed a full-stack Flask application that integrates with the TMDB API to search for movies and persist user-generated ratings and reviews using a normalized SQLite database with SQLAlchemy ORM.
- Implemented secure CRUD functionality and dynamic routing with Flask, using Flask-WTF for form validation, CSRF protection, and user input handling.
- Rendered responsive UI components with Jinja2 templating and Bootstrap, following MVC architecture and RESTful principles to ensure scalability and maintainability.