

Paul Walker

Backend Software Engineer

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SKILLS

Strong: Golang, JavaScript (ES6+), SQL (PostgreSQL), NoSQL (MongoDB), Node/Express, ORM (pg, @databases/pg, mongoose), Bash, Git/Github Flow, webpack, dotenv, CircleCI, ESXI, React, SASS + CSS, Tailwind, HTML

Experienced: TypeScript, Python, TDD (Jest, Supertest, GO), Docker, AWS, Nginx, Bcrypt, Husky, Cloudflare, Wrangler, Astro

WORK EXPERIENCE

Software Engineer - Kubby Buddy (OSLabs)

2023 – Present

- Engineered a containerized PostgreSQL database on Docker images, addressing data storage and retrieval for users' historical metric data while enforcing strict schema to enhance querying speed.
- Designed a robust backend using Express, leveraging routing and middleware capabilities to create modular and concise code, enabling integration with Docker for container, image, and volume management.
- Integrated TypeScript with custom types to improve type safety, streamline error handling, and enhance development efficiency, achieving **95% coverage** and reducing runtime errors.
- Implemented a comprehensive testing suite using Jest and Docker DIND containers; improving component predictability, and identifying potential errors and issues pre-build, with **100% back-end coverage**.
- Developed CircleCI for efficient build and test processes, assuring errors were caught across **300+ commits** within 4 weeks; empowering developers with confidence in the application's stability and functionality.
- Optimized development workflow by implementing Husky bash scripts, ensuring **100% adherence** to best practices for commit branches and messages; streamlined agile workflow applications.
- Led the implementation of Cloudflare's domain services and workers, leveraging the power of the Wrangler package for static site hosting achieving **100% uptime** and reducing bandwidth consumption by **23% over 30 days**.

OPEN SOURCE PRODUCTS

Conjure Animals | A web app to choose an animal with the conjure animals spell

2023

- Implemented Go (Golang) to optimize API performance, achieving an extraordinary **85% reduction** in average response time, resulting in a high-speed API with an average response time of just **45 milliseconds**.
- Optimized React's modular design while achieving **94% code reusability** and a simplified development process, leveraging React's Virtual DOM for swift component reloading.

Udemize | Quickly learn about techs with ChatGPT

2023

- Spearheaded Postgres integration, utilizing SQL's ACID-compliant consistency and integrity to store API and user data, resulting in backend efficiency and seamless data consistency across all user interactions.
- Engineered Express routes and middleware design patterns to seamlessly retrieve and parse data from databases and APIs, resulting in streamlined frontend data utilization and improved user experience.

Study with Me | Keep focused with centralized notes and study

2023

- Architected a MongoDB database to optimize user content storage utilizing the document-like structure and Mongoose schema to enforce data consistency, enhance system responsiveness, and improve user experience.
- Led Implementation of Bcrypt with a security-first mindset to develop a robust authentication service, enhancing user password security against brute-force attacks by **2900%** by incorporating Bcrypt's Salt work factor.

EDUCATION AND TALKS

Codesmith - Advanced Residency for Software Engineering

2023

SQL Database Modeling - Presented a talk to 60+ engineers on connecting SQL tables.

2023

INTERESTS

Using a Home Lab Server for Personal Projects | Enjoying video games with friends | Making food for myself and family | Playing DnD with friends both as DM and a Player | Building PCs with custom water loops