David Ward

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Work Experience

CompTIA *Remote / United States*
Senior Specialist, Web Development *Jun 2024 - Jan 2025*
- Led development of high-traffic customer website (20,000+ users), managing certification access key redemption and distribution
- Enhanced existing SSO integrations between educational vendor platforms to improve user access
- Designed and integrated custom form with Populi API to streamline CompTIA member data transfer between learning portals
- Resolved 5+ complex technical support issues daily to maintain seamless user operations
- **Technical skills:** C#, .NET, React, Typescript, Automated Testing, Mocks, XUnit, Jest, Nock, Postman, CI/CD, Azure, NoSQL

Houlihan Lokey *Hybrid / Los Angeles*
Software Developer Contractor *Jun 2023 - Feb 2024*
- Streamlined repetitive administrative tasks, saving around 2-3 hours per day across multiple teams through modifying email/MS Teams groups
- Automated archival of deals, email groups/MS Teams, and employee offboarding with email notifications orchestrated via JAMS job scheduler
- Rewrote a critical legacy database cleanup console app using CQRS and CLEAN, enabling unit testing and eliminating deep-rooted bugs
- Improved maintainability and enabled unit testing of API layer components by refactoring heavily used, chained CQRS handlers into services
- Maintained unit test line coverage of >80% on all API and console app work
- Introduced automated functional testing via Postman to department, increasing number of tests run 15 fold within QA budget for common workflows, expediting bug identification and resolution for inconsistent errors in MS Graph API-driven communication management apps
- **Technical skills:** C#, .NET, Angular, Typescript, Automated Testing, Mocking, Postman, CI/CD, Azure, TSQL, DataGrips, Rider

Layers Media *Remote / Los Angeles*
Full Stack Web Developer *Jul 2022 - Dec 2022*
- Solely responsible for debugging and contributing updates to a monolithic social media app, collaborating directly with CEO and CTO
- Enabled rapid startup launch by independently resolving 27 bugs and implementing feature updates across the entire web app
- Ensured zero bugs in production by writing an exhaustive 66 unit tests and 131 integration tests, providing 100% branch and code coverage
- Accelerated development time by resolving deep test suite bug affecting 4-6% tests due to data generation library sample size constraints
- **Technical skills:** Ruby on Rails, Stimulus.js, CSS, Tailwind, Flexbox, Automated Testing, CI/CD, Docker, AWS, PostgreSQL, Debugging, Git, MVC

Projects

Booker *Los Angeles, CA*
Personal project *Feb 2024 - Present*
- Building full-stack appointment booking system using auth, testing, Docker, and CI/CD pipeline in cloud infrastructure
- **Technical skills:** Ruby on Rails, Docker, Docker Compose, PostgreSQL, TailwindCSS, HTML/CSS, Heroku, GitHub Workflows, CI pipeline

Protein Domain Annotations Searchable Database SPA (Volunteer) *Northridge, CA*
Structural Bioinformatics Lab *Feb 2022 - Apr 2022*
- Built open-source structural bioinformatics tool compiling protein data from multiple sources, enabling novel analysis using Microsoft's stack
- MVC architecture uses separation of concerns for scalable development with frontend hosted on Apache server and backend/database on Azure
- **Technical skills:** Angular, C# with Entity Framework Core, AzureSQL, Postman, Apache2

GPU Enabled Protein Conformational Sampling (Volunteer) *Northridge, CA*
Structural Bioinformatics Lab *Sep 2020 - Dec 2021*
- Modernized professors' patented molecular dynamics simulation at CalTech, converting 300+ line C++ codebase to testable, modular Python/CUDA architecture for GPU acceleration
- **Technical Skills:** Python with PyCUDA, CUDA C/C++, Perl, Structural Bioinformatics, Linux (CentOS), Bash

Education

California State University, Northridge *Northridge, CA*
B.S. Computer science *Aug 2018 - Dec 2021*
- Pursued two structural bioinformatics research projects & a paid summer research project analyzing data center workload balancing algorithms

Publications

California Wildfire Prediction using Machine Learning
    Kaylee Pham, David Ward, Saulo Rubio, David Shin, Lior Zlotikman, Sergio Ramirez, Tyler Poplawski, Xunfei Jiang
    2022 21st IEEE International Conference on Machine Learning and Applications (ICMLA), 2022

Hobbies

Misc Computing WIP VPN/LLM/Storage Home Server | Learning new technologies | Raspberry Pi camera & sensor projects | Linux daily driver