DONALD LIU

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SKILLS

Python, PHP, JavaScript, C# .NET, Ruby, React, Redux, Ruby on Rails, SQL, Git, Kafka, Docker

EXPERIENCE

Software Engineer   (Jan '20 – Present)
Wayfair
- Implementing Aerospike caching layer and Kafka publish-subscribe workflow on applications which replace continuous microservice calls and creates a source of truth for data, resulting in a dramatic increase of performance and stability.
- Adding a new authentication layer on applications that decrease security risk on service API endpoints and allows tracking and telemetry of how often external teams use the service
- Developed a dynamic workflow on an internal tool that replaced legacy code which increased user performance and a cleaner codebase
- Increasing codebase unit testing coverage to decrease the occurrence of errors deployed to production
- Mentored and gave knowledge sharing presentations on our aerospike and authentication workflow
- Debugging and resolving critical issues that arise on the production tools

Software Engineering Technical Instructor   (May '19 – Dec '19)
App Academy
- Prepared and delivered daily lectures on programming fundamentals and best practices in software engineering
- Performed daily code reviews on students' code in order to prepare them for one of the nation's top coding bootcamps

PROJECTS

Pixel800   (Ruby on Rails, JavaScript, React, Redux, PostgreSQL, AJAX, HTML5, CSS3, AWS)   Live Site | Github
Single-page web application clone of 500px where photographers gain global exposure, implementing React/Redux for frontend

- Accelerated photo uploading process by eliminating full refreshes while minimizing expensive DOM updates
- Formulated an efficient search bar and a dynamic modal for users to search the entire photo gallery by specified title and to upload photos instantaneously
- Integrated multiple React-Redux action cycles to implement CRUD for users and photos through AJAX and various HTTP request types and usage of thunk middleware

Floppy Duck   (JavaScript, HTML5, CSS3)   Live Site | Github
Interactive JavaScript game allowing users to competitively challenge other user's high score

- Developed custom physics engine with collision and gravity logic using HTML5 DOM manipulation and DOM traversing to provide an engaging user experience
- Utilized JavaScript event listeners to create a fully responsive user interaction
- Incorporated Google firebase API to persist data for high scores

Project S.P.A.D.E (Solar Paneled Air Dispersal Extension) | SolidWorks/AutoCAD
A solar-powered air circulation system installed in vehicles to prevent heat strokes for infants and pets

- Developed a ventilation prototype that improves the circulation time of hot air by 50% compared to benchmark products through redesigned airway components and the addition of an alternative power source.
- Identified and strengthened critical points on the 3D prototype by performing Finite Element Analysis (FEA).

EDUCATION

App Academy – Immersive 1000+ hour full-stack web development program with < 3% acceptance
Stony Brook University – BE, *MS – Material Science Engineering,* GPA 3.79