DAVID WARD

Software Developer

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EXPERIENCE

Full Stack Web Developer
Layers Media

📅 July 2022 – Dec 2022

- Worked on a monolithic Rails MVC social media web app
- Deployed 1-2 features/bug fixes per week in a fast paced, highly independent work environment
- Contributed to models with extensive data validation and unit testing and added to controllers and views with integration testing
- Improved integrity of code base by eliminating inconsistent failing tests by determining root cause to be due to data generation library, Faker, and sample size constraints
- Methodically debugged front end Stimulus.js controllers, Tailwind CSS issues, CSS media queries, video processing jobs via sidekiq worker tasks, and browser/mobile specific issues
- Contributed modular front end components using .html.erb partials
- Utilized scopes to filter data based on business logic
- Chose architecture for tagging feature and implemented fluid UI using Stimulus.js

PROJECTS

Blog Clone
ruby on rails, .erb, heroku, postgresql, html/css

📅 Jan 2023 — Jan 2023

- Full stack MVC blog clone to display aptitude in the following: inviting interfaces, user authentication, data validation, unit/functional testing, and CI/CD workflows

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Protein Domain Annotations Database SPA (Lab Volunteer)
angular, typescript, c#, entity framework core, azure sql

📅 Jan 2022 — May 2022

- Open source, full stack MVC web app using separation of concerns
- Angular was used for the client side and C# for the back end with object relational mapping to communicate with the data layer
- The front end is deployed on a remote server, the back end on Azure App Services, and the database on Azure SQL Server
- The app enables novel analysis for bioinformatics researchers' by compiling non-uniform protein data from many databases

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GPU Enabled Protein Conformational Sampling (Lab Volunteer)
python, numpy, pycuda, cuda c/c++

📅 Sep 2020 — Dec 2021

- Developed boilerplate app to run patented molecular dynamics simulation in parallel on GPUs using PyCUDA/CUDA framework
- Refractored legacy, hard coded C++ structural protein input parsers into OOP generated, scalable, strongly typed data structures
- Presented in semesterly research and literature talks/seminars

EDUCATION

B.S. Computer Science
California State University Northridge

📅 Aug 2018 — Dec 2021

Senior Project research project published in 2022 IEEE International Conference on ML and Applications Conference:

- Project used ML to predict fires with 93% accuracy from raw geospatial image data
- Data preprocessing engineer, web developer, and project manager
- Co-led initiative to increase spatial granularity of analysis regions by a factor of 60 by sub-setting data into counties using image masking
- Created SPA map to visualize past spatiotemporal fire data using D3.js and GeoJSON data
- Presented in senior design showcase

SKILLS

Proficient: `C++` `Python`

Moderate proficiency: `Rails` `Javascript` `Java` `C` `ORM` `Unit testing` `Functional testing` `Git` `C#` `HTML/CSS`

Familiar: `Agile` `Angular` `React`

AWARDS

- IEEE ICMLA Conference Research Paper
- CSU LSAMP Program Recognizing Outstanding Undergraduate Distinction Award for outstanding research in STEM
- CSUN AI Jam – Summer Accelerator program offer ($15,000 total group comp) Presentation   2019
- Best Science Poster : SMC Global Citizenship ($1000 group prize)   2016

PARTICIPATION

- Mentor to 10 CSUN Students via Mentor Collective   2022
- Raspberry Pi/Pico Hobby Projects 2022
- Hackathon : Intelligent Systems for Molecular Biology   2021
- CSUN Accessability Hackathon   2018
- Independent Study: Built Hand Powered Centrifuge with Partner   2016