JULIET SHAFTO, PH.D.

jpshafto@gmail.com   LinkedIn   Github   GitLab   Portfolio

SKILLS
JavaScript, Python, Django, Flask, Express, React.js, Redux, Vue.js, SQL, Git, HTML5, CSS3, Docker

RELEVANT EXPERIENCE

Software Engineer
Dryden Group, July 2021 - Present
- Developed web applications (Django/Vue stack) for analysts working with Fortune 500 companies to reduce cost and increase revenue.
- Worked on marketing site (Vue/Nuxtjs) to showcase available services and attract new clients.
- Used an agile workflow with a small team to implement new features, working closely with end users.

Module Instructor
App Academy, November 2020 - July 2021
- Taught full stack development with React/Redux, Python/Flask, deployment on Docker.
- Guided 100+ students through group and solo projects, encompassing the planning, documentation, and end-to-end development of a novel full-stack web application.
- Developed learning materials, demos, lectures on a variety of topics: using ORMs, database schema design, boto3 library for AWS, SocketIO, Docker, with hundreds of viewers.

PROJECTS

Poemlapse | *(React/Redux, Flask, SQLAlchemy)*   **live** | **github**
Interactive notebook to experience poetry chronologically, from the first keystroke to the final draft
- Dynamically reconstructed each timepoint in a poem's history by reducing over a stored array of changes, allowing users to "replay" a poem's creation one change at a time, in a custom React component.
- Developed an algorithm to track every change in an evolving text with minimal storage requirements by saving only the new information upon each change and preserving the change history rather than the text itself.
- Built a minimalist text editor that automatically saves live changes to the back-end postgres database without interrupting user experience, as well as switches seamlessly between edit and replay mode so users can view the poem's history as they create it.

SimpleDecks | *(React/Redux, Node.js, Express, Sequelize)*   **live** | **github**
Web-based study app—create, share, and practice flashcards with Markdown support and a mobile-friendly UI
- Allowed users to create rich-text flashcards with formatting, links, lists, and blocks of code authored in Markdown and rendered using the markdown-to-jsx library.
- Created an intuitive flashcard practice interface by adapting Material-UI components to create a custom expandable carousel.

EDUCATION

App Academy - Immersive software development course with focus on full stack web development (Nov 2020)
Carnegie Mellon University - *Ph.D. - Cognitive Neuroscience* (May 2019)
Reed College - *BA - Psychology*   (May 2013)

OTHER EXPERIENCE

Graduate Student Researcher
Carnegie Mellon University, August 2013 - May 2019
- Designed and carried out a series of theoretically-motivated novel experiments in the domain of human neuroscience to advance understanding of the neural underpinnings of complex object perception.
- Implemented experimental paradigms to collect chronological and spatial human brain data using Matlab.
- Analyzed complex neuroscience datasets using R and Matlab, and represented data visually using ggplot2.
- Improved classification of image stimuli into human-determined shape-categories from 76% to 94% by updating an existing algorithm to better quantify the presence of specific shape-features.
- Gave lectures, designed course materials, supervised undergraduate teaching assistants, managed student behavior, and provided mentorship to students for various courses within psychology and neuroscience.