Jonathan Kim

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SKILLS

Languages: Javascript, Python, MATLAB, SQL, HTML, CSS
Frameworks/Tools: React, Redux, Express, Flask, Sequelize, SQLAlchemy, PostgreSQL, AWS, Jupyter Notebook, SolidWorks
Key Skills: Pair Programming, Test-Driven Development (TDD), Object-Oriented Programming (OOP), Scrum Methodologies

EDUCATION

App Academy 2022

- *Web development bootcamp with 1000-hour curriculum*

University of Maryland, College Park 2017 - 2021
A. James Clark School of Engineering

- *Bachelors of Science - Biomedical Engineering*

PROJECTS

ESRF (React / Redux / Flask / SQLAlchemy / Postgres) live | github

Entertainment Sports and Recreation Fantasy is a full-stack web application where users play fantasy basketball that is populated with custom players and leagues.

- Incorporated React-Redux container and Redux selector patterns to architect highly scalable and unidirectional front-end state management.
- Utilized AWS S3 with CSRF protection to implement convenient user image uploads reducing server load and allowing for scalability of image services.
- Implemented built-in and custom backend error validators to eliminate the possibility of generating rouge data allowing for smooth functionality and intuitive design.

Instaspam (React / Redux / Flask / SQLAlchemy / Postgres) live | github

Instaspam is a pixel-perfect clone of instagram that allows users to share their life experiences and interact with others.

- Incorporated hashtags by utilizing a many-to-many polymorphic relationship table and custom functions which scans a post's caption enabling the identification, addition, and deletion of hashtags.
- Collaborated in a team of four to develop a full-stack application consisting of a multitude of features such as posts, comments, likes, following, search, and hashtags.
- Researched and employed react packages easy-crop and emoji-picker for improved user experience and functionality.

Liquid Level Analysis (Python / Machine Learning / Raspberry Pi / OpenCV)

A program developed to automate and analyze patient samples to ultimately reduce the overall processing time for sepsis diagnosis.

- Worked to increase the accuracy and efficiency of patient sample measurements in high throughput laboratory diagnostics by incorporating machine learning algorithms with image analysis.
- Collaborated with four group members to provide clinical mentors with online deliverables.
- Formulated and organized the development process with structural, logical, and workflow diagrams.

EXPERIENCE

Manufacturing Associate - Catalent Pharma Solutions May 2021 - Mar 2022

- Performed all aspects of cell culture seed train operations ranging from cell thaw, passage, maintenance, and harvest.
- Purified upstream product using anion exchange chromatography, gradient-elution chromatography, viral filtration, and UF/DF tangential flow filtration.
- Coordinated with Environmental, Health, and Safety specialists to provide the facility with proper waste management protocols.