Andrew Mouldon

Full Stack Software Engineer

andrewmouldon.xyz
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Skills

Languages: HTML5, CSS3/Bootstrap, JavaScript, Python, PHP, C++, MIPS

Frameworks: Flask, React, PyTorch

Databases: NoSQL (Firestore), SQL (PostgreSQL, MySQL),

Tools/Dev Ops: Git, Glitch, Firebase

Projects

Title: *SciSum* (Video demonstrations for all projects are available at andrewmouldon.xyz)

- Developed a responsive platform using React to generate AI-powered summaries of research papers tailored to beginner, intermediate, and advanced audiences.
- Implemented search and personalized recommendations using clustering algorithms for approximate nearest neighbor searches.
- Built a robust backend with PHP to efficiently handle multi-directional API requests, manage user preferences, and support dynamic content retrieval.
- Leveraged MySQL to store structured data, including metadata, summaries, and user interaction history.

Title: *Curiosity*

- Developed an interactive educational platform using React for a responsive and intuitive user interface.
- Implemented complex learning trees, allowing users to navigate interconnected nodes for progressive topic exploration.
- Utilized Flask to handle backend logic, including user authentication and subscription management through Stripe for premium content access.
- Deployed PostgreSQL to manage and store user data, learning paths, and saved topics efficiently.

Title: *Book Tracker App*

- Built RESTful API routes and leveraged the Google Books API to implement search and display functionality
- Utilized React to ensure a smooth and user-focused frontend experience
- Handled the backend API calls through Flask to facilitate the processing of user-specific data
- Deployed PostgreSQL to store all necessary data

Education

Software Engineer: *Coding Temple*

June 2022 - January 2023

- Created Web APIs that allow websites to access information stored in an SQL database
- Experience passing and storing data between multiple different APIs
- Refactored Python code to use fewer lines and reduce time and space complexity

Student: *SIUE*

June August 2023 - Present

- Expanding my computer science knowledge with a focus on lower-level programming and systems architecture, while further developing my understanding of data structures, algorithms, and software engineering principles.