Daniel K. Chang

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SKILLS

JavaScript, TypeScript, HTML, CSS, Tailwind CSS, SASS, React, Next.js, Node.js, Express.js, MongoDB, MySQL, PostgreSQL, Jest, Prisma, tRPC, Redux, Python, Git/Github, Vercel, Webpack, Jenkins, Electron, OAuth, Kanban, Scrum, AWS, Jira, Bitbucket

PROFESSIONAL EXPERIENCE

Software Engineer | Extensis   June 2023 – Current
- Spearheaded the development of a new dynamic user interface for risk-scanning utilizing React to streamline font license risk assessment, driving a 175% increase in the average sale price (ASP) of Extensis Connect product
- Configured AWS S3 and Cloudfront services to enable auto-update desktop application (Electron) and built custom dialog and menu components to streamline the update process for the end user
- Refactored legacy algorithms for fetching administrative reporting data, improving load speeds by up to a factor of 50,000
- Leveraged Redux, Redux Saga, and TanStack React Table to create a custom React table component with column visibility and drag-and-drop column re-ordering functions while persisting user preferences in state and across sessions

Software Engineer | Mun Li Photography (Freelance)   April 2023 – May 2023
- Built website using Next.js to leverage server-side rendering and SEO, improving page load times, optimizing performance on devices with limited processing power, and maximizing the online visibility of the business
- Implemented responsive user interface styling using Tailwind CSS screen-size breakpoints with a mobile-first approach, resulting in a smooth and consistent user experience across multiple screen sizes
- Collaborated with the client to ensure a smooth deployment process with Vercel, providing consistent updates with GitHub integration based on the client's needs and data from Vercel's monitoring and analytics tools

Software Engineer | AthenaJS (Open Source)   January 2023 – May 2023
- Built a standalone application with Node.js runtime (using Electron) to enable cross-platform compatibility and leverage file and operating system APIs to persist data between sessions and allow users to upload files
- Utilized React context and reducer hooks to manage state, enabling fast and responsive user interfaces and improving code organization by minimizing the passing of props through multiple layers of components
- Used React Profiler API and ChartJS to measure and display component render times upon mounting, enabling users to easily identify bottlenecks in their application's performance by comparison using bar graphs
- Wrote codebase in TypeScript to enhance codebase readability and maintainability, allowing for easier collaboration with contributors to the project and resulting in better scalability of the project in the long-term
- Designed algorithm to parse user-uploaded JSX files into an abstract syntax tree (AST) and traverse the AST to selectively extract only the required code, resulting in a quick and intuitive user experience

PROJECTS

My Anime List | Modern Anime List Application
- Developed strongly typed tRPC APIs using TypeScript interfaces, allowing for detection of type errors before compile time when consuming APIs on the frontend and improving the developer experience with IntelliSense.
- Designed MySQL database hosted with PlanetScale to store ACID compliant user data and allowing users to store anime data in their personal collections while ensuring high levels of data consistency and integrity
- Leveraged Prisma ORM to interact with MySQL database, generating intuitive queries and typesafe schemas

EDUCATION

California Institute of Technology
M.S. in Chemistry, **GPA: 3.7/4.0**
- Awarded a merit-based National Science Foundation Graduate Research Fellowship, which provides $138,000 in funding to outstanding graduate students in National Science Foundation-supported STEM disciplines

Chapman University
B.S in Chemistry with Honors: summa cum laude, *Minor in Computational Science*, **GPA: 4.0/4.0**
- Winner of the Ronald M. Huntington Award given to the graduating senior judged to have the most distinguished record of scholarly accomplishments across all majors and colleges at Chapman University