Pirouz Mehmandoost

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Summary

Driven software engineer with a background in front-end development. Experience developing interactive apps for the IoT industry.

Technical Skills

- **Programming Languages and Frameworks:** JavaScript, TypeScript, Next.js, React, React Native, Redux, Zustand, Styled Components, Tailwind CSS, CSS, OpenGL, WebGL, Three.js, React Three Fiber, Drei, GSAP, React Spring, Java, C++, Git, HTML.
- **Developer Tools:** Github, Gitlab, Jira, Confluence, Postman, Chrome Developer Tools, Visual Studio Code, XCode, Vercel.
- **Design:** Blender, Autodesk Fusion 360, Adobe Photoshop, Adobe Illustrator, Figma.

Projects

Portfolio Site: https://para-pi.vercel.app/

- Developed an app to display 3D printing projects and showcase rendering 3D graphics with WebGL.
- Next.js based App Router pattern for routing/navigation, and deployed using Vercel.
- Styled using Tailwind CSS.
- Used Zustand to manage app state.
- Used React Three Fiber to manage 3D models as JSX, load models from files and cache resources, and minimize WebGL draw calls.
- Experimented with GSAP, JEasings, Framer-Motion, and React Spring for animations.
- Designed 3D models using Blender software and retouched images using Adobe Photoshop.
- Produced functional prototypes of all 3D models using a customized Prusa i3 MK3S+ 3D printer.

Professional Experience

Junior Software Engineer, Altair Engineering, Berkeley, CA, 08/2020 - 02/2022

Project: Redesign the Toggled IQ mobile application (React Native)

- Re-wrote app state management logic and updated implementations of Redux.
- Developed a login feature with logic compliant to AuthNZ standards for React Native apps.
- Developed a “scenes” feature that enables controlling settings on multiple smart flood lights and tubes.
- Developed a “schedules” feature to apply “scenes” settings based on configurable schedules.
- Developed a smart device detection feature to configure line-of-sight devices and sync local data with a cloud API.
- Collaborated with a lead engineer to develop a flexible controls panel for dispatching batch commands to devices.
- Collaborated with embedded engineers during the development of IoT data schemas for controllable devices.

Project: TypeScript-based Web app for an IoT platform

- Collaborated with a lead engineer to implement Redux for managing application state.
- Developed a floor map visualization feature for displaying overlays of data pertaining to floors in multistory buildings.
- Developed a feature to visualize and tabulate hierarchical IoT network data. Enabled table filters, tooltips, and breadcrumb navigation to ease traversing complex hierarchies.

QA Software Engineer, Altair Engineering, Berkeley, CA, 09/2019 - 08/2020

Project: QA test suite against new API

- Assessed use cases for leveraging the Postman API testing platform and developed a presentation to share insights.
- Wrote the QA team’s first JavaScript-based API tests using Postman and demonstrated use of the Newman CLI.
- Documented team standards for writing API tests, repository management, and usage of Postman.
- Gained familiarity with AuthNZ2.0 and OAuth standards within the context of API testing, and SSO on React-Native apps.
- Maintained communication with the backend team during multiple stages of REST API development and deployment.

Intern QA Engineer, Altair Engineering, Berkeley, CA, 06/2019 - 09/2019

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Graduate Student Assistant, Mills College, Oakland, CA, 08/2017 - 05/2019

- Graded coursework for introductory and intermediate object-oriented programming classes using Java.
- Provided on-campus tutoring for Discrete mathematics 1.

Computer Science Tutor, Ohlone College, Fremont, CA, 06/2016 - 05/2017

- Conducted pair programming during class for 3 C++ based classes: introductory and intermediate OOP, and data Structures.
- Provided on-campus group and individual tutoring.

Education

Post Baccalaureate	Computer Science	Mills College	Oakland, CA	2017 - 2019
BA	Art, Persian Studies	SFSU	San Francisco, CA	2009 - 2013