Pirouz Mehmandoost

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Summary

Driven software engineer with a background in front-end development using JavaScript frameworks.

Technical Skills -

- Programming: JavaScript, TypeScript, React, Next.js, Redux, CreateSlice, Zustand, CSS, Styled Components, Tailwind CSS, OpenGL, WebGL, Three.js, React Three Fiber, Drei, GSAP, HTML, Java, C++, Git.
- Design: Blender, Autodesk Fusion 360, Adobe Photoshop, Adobe Illustrator, Figma.

Projects

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

- Developed a web app that leverages 3D computer graphics libraries to display 3D models of personal design projects.
- Next.js 14 based using App Router pattern for routing/navigation, styled with Tailwind CSS and deployed using Vercel.
- Used Zustand to manage app state, and React Three Fiber hooks to cache 3D assets and optimize WebGL rendering.
- Used React Three Fiber and GLTFJSX libraries to render interactive 3D scenes as JSX components .
- Designed 3D models using Blender and Autodesk Fusion 360, and 3D printed models using a Prusa i3 MK3S+ 3D printer.

Product Design: Developed A collection of 3D printed handbags, fitness accessories, and footwear.

- Developed a proprietary technology: a modular footwear design that allows end-users to modify the shape and color of footwear.
- Developed an embedded lock mechanism with automatic lock and manual unlock.
- Incorporated the lock design in 3D printed footwear and a stylized Yoga mat holder.
- Tested developing prototypes in-house using a range of materials including TPU, TPE, Nylons and Nylon composites.

Professional Experience

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

Project: React-Native app for an IoT platform

- Researched authentication best practices for native apps and developed a login feature with logic compliant to AuthNZ standards.
- Developed a “scenes” feature that enables controlling and configuring 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 Bluetooth devices and sync local data with a cloud API.
- Collaborated with a lead engineer to develop a controls panel for configuring IoT hardware including smart lights.

Project: TypeScript-based Web app for an IoT platform

- Collaborated with a lead engineer to implement Redux (CreateSlice) 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, Advanced Degree Prep Track	Mills College	Oakland, CA	2017 - 2019
BA	Art, Persian Studies	SFSU	San Francisco, CA	2009 - 2013