Roy S. Choi

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EDUCATION

University of Southern California

Bachelor of Science in Computer Science (B.S.)

Aug. 2022 – May 2025 *GPA*: 3.54

EXPERIENCE

Full-Stack Software Engineering Intern

May 2024 – Jul. 2024

Kintsuai Global

Los Angeles, CA

- Used **React** and **JavaScript** to connect a **Node.js** backend to display comic book metadata and pages for a web application where comic book fans can read their comics online
- Integrated AWS S3 with JavaScript and Express.js to manage scalable comic book uploads and retrieval workflows
- Researched and incorporated an optical character recognition machine learning model to extract text from uploaded comic
 pages and used Howler.js to trigger relevant audio playback, creating a more immersive experience when reading through the
 application
- Created automated tests with **Jest** covering key React components and Express.js routes, achieving over 90% line coverage and improving reliability during development
- Documented all developed API endpoints using **Swaggerhub**, aligning backend specs with QA and deployment workflows for improved cross-team coordination

Software Engineering Intern

Oct. 2023 - Jan. 2024

See ke ats

- Los Angeles, CA
- Used React Native and Tailwind CSS to create React components based on Figma designs for an IOS/Android mobile application advertising mom&pop shops, increasing accessibility across devices
- Led the migration of 4+ React 16 components to use React 17 hooks, caching strategies, and cleaner \mathbf{JSX} syntax, improving code maintainability and effectively reducing API fetch requests by 1/2
- Integrated React's lazy loading feature with the Suspense component for images/videos, decreasing initial load time on one screen from 5s to 3s during manual testing
- Collaborated in an Agile team environment with designers and developers, contributing to sprint planning, daily stand-ups, and iterative feature delivery

PROJECTS

$\textbf{Industry Sponsored Capstone Project, Siemens Digital} \mid \textit{React.js}, \textit{Python, Flask,MongoDB}$

Aug 2024 - Dec. 2024

- Built a web application that helps users predict company revenue by modeling statistical factors and running Monte Carlo simulations
- Designed and implemented RESTful API routes using Flask and Python to perform Monte Carlo simulations for revenue prediction, integrating MongoDB for data persistence and enabling seamless interaction with the frontend
- Created interactive data visualizations using React.js, Material UI, and React Graphs to enhance stakeholder understanding of financial forecasts
- \bullet Presented the project to Siemens VPs, securing support for further development

Bank Statement Analyzer | Next.js, Golang, AWS S3, OpenAI API

Jan. 2025

- Created a Next.js application to generate efficient financial analysis and insights from all US-based bank statements, enabling bank analysts to make data-driven decisions faster
- Built Golang microservices and API routes to parse PDF bank statements and provide analysis using OpenAI's API
- Developed an internal file system to manage and display bank statement files stored in AWS S3, streamlining file access and improving data organization for bank analysts

National Park Display Application | React.js, Springboot, Java, PostgreSQL, Jest, Junit

Jan. 2024

- Developed an end-to-end solution using Spring Boot (Java) backend and React front-end styled with Bootstrap for an interactive, geo-based park exploration feature.
- Performed Javascript (Jest) and Java (Junit) unit tests with 95% line coverage and 85% branch coverage.
- Integrated PostgreSQL for efficient storage and retrieval of user data objects

TECHNICAL SKILLS

- Languages: Python, C++, C, Java, JavaScript, HTML, CSS, SQL, Golang
- Frameworks/Libraries: React.js, Next.js, Springboot, Material UI, Node.js, Jest, JUnit, MySQL/PostgreSQL (RDBMS), Bootstrap, Tailwind, Howler.js
- Developer Tools: Git, Github, AWS, Docker, Atlassian (Jira, Confluence), Swaggerhub,