Hun Jin (Leo) Choi

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EDUCATION

University of Michigan | Ann Arbor
Bachelors of Science, Major in Computer Science, Major in Economics — Expected May 2024

- Relevant Coursework: Introduction to Python, Discrete Math, Data Structures and Algorithm, Foundation of Computer Science, Computer Security, Computer Organization, Operating Systems, Artificial Intelligence
- Languages: Python, C++, C, Javascript, HTML, CSS, SQL
- Technologies: React.js, Next.js, Git, Firebase, Tailwind, Jest, JSONata

EXPERIENCE

Visa Inc. — May 2023 - Present
Software Engineer Intern | Foster City, CA

- Developed a microfrontend solution for a newly redesigned help center using single-spa and React in Visa Analytics Platform, an analytics app leveraging payments data to empower clients in making informed business decisions
- Leveraged Jest testing framework to successfully achieve code coverage exceeding 89% across more than 10+ files
- Enhanced the API orchestration by incorporating 2 additional APIs into the existing sequence of API calls, allowing for personalized content updates on the platform based on user profiles
- Pioneered a parent dependency library, enabling seamless inheritance of dependencies across all Angular projects, alleviating the issue of version inconsistencies while also simplifying the process of updating said dependencies
- Conducted 3 different security scans continuously on UI code to ensure code quality and the integrity of both the static code files and the open-source libraries it incorporates, mitigating any potential compromise

Korean American Student Association(KASA) — Aug 2022 - Present
Membership Chair | Ann Arbor, MI

- Responsible for increasing and maintaining the membership count of KASA while also organizing events of Big/Little programs and social gatherings in cooperation with the events coordinator
- Created forms to find out the interests of general KASA members to help events coordinators with their efforts while also sending information to multimedia directors to help them with public outreach efforts

PROJECTS

Online Bookstore | leohchoi.github.io/reactjs-library/ — Aug 2022

- Utilized React (with hooks), HTML, CSS, and Javascript to create an online bookstore that routes to 2 other pages
- Produced a mock dataset to replicate an API to fetch books from and load onto a site with skeleton loading states
- Configured Javascript functions to correctly display total price (including 6% tax) and correctly sort the books depending on how the user wants to see the price (low to high, etc)

Web Portfolio | iamleochoi.com — Jul 2022

- Created a personal portfolio website using vanilla HTML, CSS, and Javascript
- Incorporated media queries at 768px and 480px to make the site responsive for desktop, tablet, and phone viewports
- Applied keyframes, pseudo classes, and JavaScript to increase interactivity and optimized through lazy loading

Piazza Post Classifier — Apr 2022

- Applied binary search tree, recursion, comparators, and map data structure to create a machine learning program
- Built the algorithm to process 10,000+ of training posts to predict tags on new posts based on the contents
- Implemented log probability equation along with a bag of words model to reach ~90% accuracy of classifying posts

Euchre Card Game — Mar 2022

- Constructed the Euchre card game by integrating polymorphism, dynamic memory and ADTs
- Calibrated the program so that it can be used to play the game with 3 other people or against an AI, which picks its best move based on the cards in its hands and the card that is revealed at the start of the round
- Deployed 100% code coverage through the use of almost 90 unit tests to test accuracy of game results

Image Resizing — Feb 2022

- Implemented dynamic memory, structs, pointers and arrays to create a seam carving algorithm, which accurately changes the aspect ratio of the image without cutting out parts or distorting the image
- Calculated which seams to remove in the image by going down vertically through the pixels and deleting those with the lowest ‘energy’, which is computed through adding the squared differences of neighboring pixels