

Jessica Hahm

Los Angeles, CA

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Education

University of Southern California

Aug. 2022 – May 2025

Bachelor of Science in Computer Science

Los Angeles, CA

Involvement: Korean-American Scientists and Engineers Association, Society of Women Engineers (SWE), Theta Tau

Relevant Coursework: Data Structures & Algorithms, Discrete Mathematics, Embedded Systems, Artificial Intelligence, Video Game Programming, Internet working, Software Engineering, Probability Theory, Capstone Design, Cross-Platform App

Development, Full-Stack Web Development, Operation Systems, Construction of Large-Software System

Technical Skills

Languages: C++, Python, Java, HTML/CSS, JavaScript, SwiftUI, Dart, TypeScript

Developer Tools: VS Code, Eclipse, Android Studio, Xcode, flutter, QT

Technologies/Frameworks: Linux, IOS, Windows, Github, React Native, React, Node.js, SQL

Misc: Crochet/Knitting projects focused on designing and crafting cute and intricate items

Experience

Sam II I&C

May. 2022 - Present

Front End Engineer

Busan, South Korea

- Develop responsive and interactive web interfaces using React, ensuring device compatibility and improving efficiency by **10%**. Optimized the main website's menu bar to enhance user experience and performance
- Identified API and database inefficiencies causing bottlenecks and redesigned the system architecture to streamline data flow, boosting user response speed by **30%** and enhancing the user interface for a seamless experience

University of Southern California

Jan. 2023 - Present

Teaching Assistant

Los Angeles, CA

- Leads monitoring and analysis of **100+** non-major students' development, harnessing insights on common errors to refine teaching methodologies. Conducts weekly **2-hour** office hours to provide targeted assistance in Python programming

ID Tech

May. 2024 - Aug. 2024

Tech Camp Lead

Los Angeles, CA

- Crafted curriculums for Virtual Robotics and Scratch classes and Minecraft Game Design, tailored for **15+** preschool students
- Collaborated with **20+** instructors to integrate ChatGPT API and databases, optimizing data flow and enhancing user experience with advanced server-side strategies

Pasadena City College

Sep. - Dec. 2021

Data Analyst, Student Data Management

Pasadena, CA

- Developed and implemented an AI-driven data management system to enable real-time updates and streamline data processing for over **10,000** students. Optimized data handling workflows to ensure accuracy and responsiveness, significantly reducing latency and improving system scalability
- Enhanced data accuracy and achieved a notable **40%** reduction in processing times for strategic process and operational excellence

Projects

Any Movie | React, TMDB API, AppWrite, Tailwind CSS, Youtube API, Web Deployment, gh-pages, AWS, Exa.ai

Feb. 2025

- Developed an interactive movie browsing website using JavaScript, HTML, and CSS, leveraging caching to track search counts for real-time trending updates, ensuring seamless retrieval, and deployed it using GitHub Pages for easy access and updates
- Integrated TMDB and Appwrite APIs to fetch and store movie data, enabling users to search for movies, view trending selections, and access detailed information, including posters, trailers from YouTube, and key movie details. Additionally, utilized the Exa.ai API to provide customized movie summaries in the movie details

AutoCart Buyer | Selenium, Web Scraping, ChromeDriver

Oct. 2024

- Developed an automated e-commerce checkout program in Python using Selenium, analyzing HTML structure to detect restocks, extract key elements like 'Add to Cart' and 'Checkout' buttons, and streamline the purchasing process
- Optimized purchase speed by reducing manual browsing and checkout time from **2-minutes** to **40-seconds**, implementing multi-threading and automated form-filling to improve success rates for high-demand product purchases

Video Streaming Service | CDN, C++, VM

Dec. 2023

- Built a DNS load balancer with round-robin and geographic-based IP selection to distribute video traffic across servers in Mininet, emulating real-world CDN setups. Optimized video delivery by routing clients to the nearest or least-loaded server and improved CDN architecture with C++ multithreading for high data throughput and efficient adaptive bitrate streaming
- Applied advanced mathematical and physics principles to enhance adaptive bitrate streaming and optimize load balancing, ensuring and optimize load balancing, ensuring efficient video delivery and improves performance under fluctuating network conditions

Productivity Tool for SC | Java, React-Native.js, SQL, Google Calendar API, AWS, Spring Boot, Maven

Oct. 2023

- Developed user-friendly GUIs using React Native and Swift UI, optimizing usability and accessibility while securing user login with Google Authentication API for smooth back-end data transmission and enhanced security
- Implemented testing frameworks for React-based applications, ensuring cross-browser compatibility and consistent performance

Leadership

Korean-American Scientists and Engineers Association

Aug. 2023 - May. 2024

Project Developer

University of Southern California

- Created a cross-platform mobile application with built-in chat and feed functionality using Swift for iOS, Linux, and Windows while assisting a cohort of **20+** developers in optimized usage of Git version control and cloud infrastructure