

Jonathan Shih

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EDUCATION

Northeastern University

Expected May 2024

B.S. in Computer Science and Design

- 3.86/4.0 GPA, Dean's List: All Semesters
- Relevant Coursework: Fundamentals of Software Engineering, Discrete Structures, Object-Oriented Design, Algorithms and Data, User Experience and Interaction, Web Development, Database Design, Foundations of AI

EXPERIENCE

Northeastern University

Boston, MA

Lead Teaching Assistant for CS2510

January 2023 – Present

- Mentored students with questions on homework problems and class material through office hours and one-on-one support
- Led weekly lab sessions of 40 people, enhancing student's understanding of computer science fundamentals
- Guided students through thorough feedback on homework and exams, reinforcing best coding practices and class concepts

Proof (formerly Notarize)

Boston, MA

Full-Stack Software Engineer Co-op

July 2023 – December 2023

- Collaborating with the UI/UX team to revamp the user interface by implementing new features and refining existing elements, improving overall workflow efficiency by 20% and user satisfaction by 31%
- Implemented targeted optimizations and refined existing tests, leading to increased end-to-end test stability and reliability
- Rendered GraphQL API errors from Ruby back-end to display on ReactJS application, increasing submission rate by 4%

Wayfair

Boston, MA

Full-Stack Software Engineer Co-op

July 2022 – December 2022

- Abstracted and optimized re-usability of 30% of code base, boosting developer efficiency by 25% and enhancing code clarity
- Communicated directly with business users to resolve bugs and implement features on SQL intermediary tool and internal employee admin website to ensure functionality
- Created and integrated REST API on change proposal web app, enabling enhanced CRUD operations on SPDB
- Implemented DataDog metric tracking to monitor application performance, leading to a 15% reduction in response time
- Designed and developed an internal database change proposal system for data uniformity and improved change tracking

C!ub

Boston, MA

Software Engineer & Designer

June 2020 – April 2022

- Designed and developed the UI and front-end for C!ub's MVP using Figma, Xcode, and Swift
- Coordinated with the CEO and COO to optimize back-end code for C!ub's first iOS MVP by reducing code complexity
- Established digital presence, created marketing material to increase user engagement by 150% using Adobe Creative Suite

PROJECTS

Covey Town Auth | TypeScript, Java, MobgoDB, Auth0, MarkdownUI

May 2022

- Integrated Auth0 for user authentication and MongoDB for user profiles, enabling seamless user updates and interactions within and outside the web game
- Designed an integrated Markdown UI for creating public and private quick notes that are accessible and editable anytime

MemeDB | JavaScript, HTML/CSS, Node.js, React, Redux

April 2022

- Constructed a dynamic JavaScript database website using Node.js, React, and Redux, interfacing with the Imgflip API to efficiently retrieve and showcase meme data
- Integrated MongoDB for user interactions including saving, liking, and commenting on memes, coupled with password authentication for personalized interactions like viewing/editing profile and user related interactions

IME Image Manipulator and Enhancer | Java

August 2021

- Developed a user-friendly photo processing software in Java, designed using the MVC pattern and featuring an intuitive GUI
- Allowed users to apply diverse image filters through matrix manipulation and RGB adjustment, also providing the flexibility to export images in multiple preferred formats (i.e. JPG, PNG, PPM)

Maze Generation | Java

May 2021

- Crafted a captivating maze game in Java that generates solvable rectangular mazes via Kruskal's algorithm
- Users can interactively navigate through the maze or opt for automated solutions through breadth-first or depth-first searches, with both visited squares and the shortest path highlighted

TECHNICAL SKILLS

Coding Languages: Java, JavaScript, Typescript, GraphQL, SQL, Python, PHP, Ruby, Swift

Libraries & Frameworks: React, Node.js, Redux, jQuery, Jest, Express, Spring, Ruby on Rails

Tools & Technologies: Git, L^AT_EX, HTML/CSS, Figma, PostgreSQL, Docker, Kubernetes, Jenkins, Postman, JetBrains IDEs, Adobe creative suite