

# Jonathan Shih

617-606-1575 | [shih.jo@northeastern.edu](mailto:shih.jo@northeastern.edu) | [jonathan-shih.github.io/portfolio/](https://jonathan-shih.github.io/portfolio/) | [in/Jonathan-Shih/](https://in/Jonathan-Shih/) | [github.com/Jonathan-Shih](https://github.com/Jonathan-Shih)

## EDUCATION

### Northeastern University

May 2024

*B.S. in Computer Science and Design*

- 3.9/4.0 GPA, Summa Cum Laude, 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

### Cybereason

San Diego, CA

*Front End Software Engineer | Typescript, ReactJS*

January 2025 – Present

- Leading debugging efforts, identifying root causes and improving error handling, reducing frontend issue backlog by 22%.
- Spearheading to the development of a UI design system, improving consistency and reducing development time by 15%

### Scout

Boston, MA

*Tech Lead | JavaScript, ReactJS, NodeJS, MongoDB*

January 2024 – May 2024

- Architected and led the full-stack development of a client website, enabling seamless content updates from MongoDB
- Implemented and optimized 10 REST API endpoints, reducing update time by 60% and improving efficiency
- Collaborated directly with clients and designers to define project scope, deliver features, and exceed expectations

### Northeastern University

Boston, MA

*Lead Teaching Assistant for Fundamentals of Computer Science 2 | Java*

January 2023 – May 2024

- Led weekly labs with 40+ students, improving their debugging skills and understanding of computer science principles
- Guided students in evaluating solution trade-offs to problems, and to become more independent problem solvers

### Proof (formerly Notarize)

Boston, MA

*Full-Stack Software Engineer Co-op | TypeScript, ReactJS, Ruby on Rails, GraphQL*

July 2023 – December 2023

- Collaborated with the UI/UX team to redesign the interface by implementing new features and refining existing elements, resulting in a 20% increase in workflow efficiency and a 31% boost in user satisfaction
- Implemented targeted optimizations and refined existing tests, increasing end-to-end test stability and reliability by 25%
- Created a form validation system and rendered GraphQL API errors, reducing submission errors by 28%
- Streamlined GraphQL query structures, cutting query execution time by 13% and enhancing app responsiveness

### Wayfair

Boston, MA

*Full-Stack Software Engineer Co-op | Python, Java, PHP, SQL*

July 2022 – December 2022

- Refactored 30% of the codebase, improving reusability, code clarity and reducing development time by 25%
- 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

## PROJECTS

### Ultimate Tic-Tac-Toe AI | Python, NumPy

March 2024

- Developed a minimax AI with a heuristic-based board state evaluator for a complex version of Tic-Tac-Toe. Utilized Alpha-Beta pruning for optimization and to reduce overfitting.
- Enhanced AI performance through multiple hill climbing strategies and iterative weight adjustment.

### Covey Town Auth | TypeScript, Java, MongoDB, 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

## 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<sup>A</sup>T<sub>E</sub>X, HTML/CSS, Figma, PostgreSQL, Docker, Kubernetes, Jenkins, Postman, JetBrains IDEs, Adobe creative suite