

Evan Tang

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Education

Northeastern University

Boston, MA

Master of Science in Computer Science, 4.0/ 4.0

Sep. 2022 - Expected Dec. 2024

- **Courses:** Artificial Intelligence, Computer Network, Algorithms, Discrete Structures, Object-Oriented Design

Technical Skills

- **Web Development:** HTML, CSS, React.js, Node.js, Express, Django, Redux, jQuery
- **Programming Languages:** Java, JavaScript, C, Python, SQL, C++, C#
- **Databases:** MySQL, SQL Server, MongoDB

Work Experiences

Fabersociety - A research and design collaborative founded in 2013 at Cambridge.

Shenzhen

Software Developer.

Aug. 2021 - Aug. 2022

- Led a full-stack project to address the team's construction data-handling needs. Developed a **Windows forms-based application** ensuring **Building Information Modeling (BIM)** compliance.
- Designed an intuitive **UI/UX** using **Figma**. Created a responsive web interface using **HTML**, **CSS**, and **JavaScript**, marrying design with functionality.
- Revamped the back end of a cluttered application database by optimizing data quality and streamlining workflows using **Express.js** and **MySQL**; implemented robust **CRUD** operations for efficient data management.
- Confronted with manual Construction Application processes, implemented automation, and transformed **Digital Model Operations** using **Python**, resulting in a marked increase in efficiency and a 200% reduction in operation times.
- Collaborated with 5+ teams, swiftly gathered requirements, and produced design documents with **UML diagrams** for clear software design comprehension.
- Addressed scattered client data and fragmented database storage, consolidated and migrated data to **SQL Server** using **SSIS**, while also engineering and maintaining diverse database objects, ensuring centralized access and enhanced data storage capabilities.

Projects

Social Media Platform for Art and Discourse | Full-Stack Developer

08/ 2023 - 10/ 2023

- Developed a **MERN stack** platform for global art discourse, targeting Pacific Islander and Chinese youth.
- Crafted bilingual UI with **React's i18n/ l10n** and real-time interactions using **WebSocket** via **Node.js**.
- Employed **JWT** with **Express** for authentication and role-based access, with **MongoDB** as the backend.
- Designed a user-centric UI using **responsive CSS** and **Redux**, introducing features like dark mode.
- Created scalable backend infrastructure using **RESTful APIs** in **Express.js** for data modeling and community moderation.

TCP Protocol Implementation | Systems Developer

09/ 2023 - Present

- Engineered a comprehensive **TCP protocol stack** in **C++** from scratch, emphasizing reliable data transfer.
- Managed packet-level challenges such as **packet loss** and **retransmissions** using sliding windows.
- Adopted **congestion control** mechanisms like **slow start** and **congestion avoidance** to optimize network performance.
- Utilized **raw sockets** for direct network layer interactions, bypassing the OS's native **TCP/IP stack**.
- Employed **Wireshark** for debugging, analyzing packet traces to ensure protocol adherence to **RFC 793**.

Bouncity - AR Game for iOS | iOS & AR Developer

05/ 2023 - 06/ 2023

- Developed a **Unity-based** AR game for iOS, combining **Swift** and **ARKit** for augmented interactions.
- Incorporated **ARCore API** for detailed 3D building overlays enhancing gameplay within a 60-meter radius.
- Adhered to Apple's **Human Interface Guidelines** ensuring a user-friendly experience.
- Debugged using **Xcode**, optimizing Unity's iOS performance and resolving AR issues.

Shapes Photo Album Application | Java Developer

04/ 2023 – 05/ 2023

- Implemented **MVC architecture** adhering to **OOD** and **SOLID** principles.
- Created interactive **Java Swing GUI** and static **HTML/ SVG** views.
- Developed Controller for model-view coordination.
- Enabled dynamic model population via text file input.

Professional Affiliations

Active Member, National Association of Asian American Professionals (NAAAP)

Boston, MA

- Enhanced Asian-Pacific professional development through NAAAP initiatives and volunteered at the Boston Dragon Boat Festival handling logistics and preparations.

Event Coordinator, College Basketball Team Alumni Association

- Collaboratively coordinated bi-annual networking events, managing aspects of event planning, budgeting, and execution, and contributing to a vibrant professional network among 300+ alumni spanning 15+ years.