Raymond Xu

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Education

Northeastern University

Boston, MA • Expected Graduation: May 2028

Candidate for Bachelor of Science in Computer Engineering & Computer Science, Minor in Mathematics

GPA: 4.0/4.0 | **Dean's List**

Relevant Coursework: Discrete Structures (accelerated), Intensive Mathematical Reasoning, Fundamentals of Computer Science 1&2 (accelerated), Differential Equations & Linear Algebra, Cornerstone of Engineering 1&2

Clubs: Electric Racing, Asian Student Union

Skills & Interests

Technical: Java, Python, C++, C#, Git, Web Dev. (TypeScript, React, Next.js, Node.js, Tailwind), SQL, Data Structures & Algorithms, Machine Learning & AI, Data Visualization (d3.js, three.js), Game Dev. (Unity, Godot), 3D-Modeling/CGI (Blender), Graphic Design (Photoshop, Illustrator), Editing/VFX (Premiere, After Effects)

Other: Project Management, Social Media Marketing, Teaching, Coaching

Language: English (native), Mandarin (fluent)

Interests: Running, Soccer, Skiing, Rock Climbing, Traveling, Gaming, Blending (3D Project Reel)

Experience

Major League Hacking

Boston, MA

October 2024 - November 2024 **Lead Developer** Awarded the "Interstellar Intelligence" track winner at BostonHacks 2024, selected from 49 teams.

- Developed a simulation using Unity Engine and Machine Learning Agents Toolkit to train AI for space vehicle tasks in diverse environments, reducing live-testing risks.
- Developed deep reinforcement learning models using Python, PyTorch, and Unity for physics simulations.

Hack Club

Boston, MA

Lead Game Developer

May 2023 – June 2023

- Led a team of 5 to win 1st place at Hack Club's AngelHacks 3.0, securing the grand prize of 5 nintendo switches.
- Coordinated, programmed, and launched a role-playing game using Unity and C# within 2 days.
- Collaborated with teammates to brainstorm and refine game design and mechanics.

Summer Coding Camp | Self-initiated community event for youth CS/STEM education **Teacher**

Wayland, MA August 2023

- Developed and delivered an introductory programming curriculum for 20+ students in grades 6-8, focusing on fundamental computer science concepts in p5.js, and guided students to complete their own final project.
- Researched and applied effective teaching pedagogies to engage students and support varied learning styles.
- Led hands-on coding activities and collaborative exercises to enhance problem-solving and teamwork skills.

CIS Research Program

Remote

Co-author May 2023 – November 2023

- Paper Title: Building High-quality Psychology Knowledge Graphs from Text using REBEL.
- Co-authored a research paper on building high-quality psychology knowledge graphs using NLP tools such as BERT, spaCy, and NLTK under guidance of Prof. Patrick Houlihan.
- Developed and tested an automated system achieving near-optimal results on 20 Wikipedia articles in 8 epochs.
- Improved training efficiency and output quality through pre-training and predictive language models.

Projects

Spotify Data Visualizer

Boston, MA

Web Developer

December 2024 – January 2025

- Developed a web app that allows users to explore/visualize their Spotify listening data, including top artists, tracks, genres.
- Implemented user authentication using OAuth 2.0 with PKCE Flow for secure login and data access.
- Integrated Spotify Web API to fetch personalized data and utilized D3.js to create interactive, dynamic visualizations.

Personal Portfolio Website

Wayland, MA

Web Developer November 2023 – December 2023 • Designed a 3D isometric room portfolio website using HTML, CSS, JavaScript, and Three.js.

Modeled and animated 3D assets with Blender to create an interactive and visually engaging user experience.