Raymond Xu

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EDUCATION

Northeastern University   Boston, MA
Bachelor of Science in Computer Engineering & Computer Science, Minor in Mathematics   *Sep. 2024 – May 2028*
- GPA: 4.0/4.0, Dean's List, Eta Kappa Nu

EXPERIENCE

Section Leader   April 2025 – Present
Stanford University: Code In Place   *Remote*
- Delivered a 1-hour weekly section over a 6-week program to cohorts of 10–15 international learners.
- Guided students through Stanford's CS106A-based modules covering Python fundamentals: variables, control flow, functions, lists, and dictionaries.

Full Stack Developer   March 2025
HackIllinois 2025   *Champaign, IL*
- Led the development of a viral social media finance app, using Next.js, TypeScript, and Tailwind that gamifies saving money and helps users build better spending habits alongside their peers.
- Engineered a scalable architecture with Supabase for secure authentication and Recharts for data visualization.
- Achieved Top 5 Finalist placement out of 105 teams at HackIllinois.

Front End Developer   Feb. 2025
Civic Tech Hackathon 2025   *Boston, MA*
- Developed a mobile app using Python, FastAPI, Flet, and Firebase to gamify real-world wildlife tracking, integrating AI-powered animal recognition (YOLOv8, PyTorch, OpenCV) with AR-based tracking, winning Best Design from 40 teams.
- Engineered a real-time species detection system achieving 85% accuracy, leveraging Moondream and Segment Anything Model 2 for image segmentation and enhancement.
- Designed and implemented a crowdsourced global biodiversity heatmap, projected to generate 100M+ species observations annually, aiding conservation research.

Lead Developer   Oct. 2024 – Nov. 2024
BostonHacks 2024   *Boston, MA*
- Developed simulations using Unity's Machine Learning Agents Toolkit to train AI for space vehicle tasks in diverse environments, reducing live-testing risks and winning the "Interstellar Intelligence" award selected from 49 teams.
- Developed deep reinforcement learning models using Python, PyTorch, and Unity for physics simulations.

PROJECTS

Spotify Data Visualizer | *React, Next.js, D3.js, Spotify Web API*   Dec. 2024 – Jan. 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.

3D Online Multiplayer Game | *Unity, C#, Netcode for Game Objects, Blender*   April 2024 – May 2024
- Developed a 3D Overcooked-inspired multiplayer game to teach Chemistry lab procedures to high school AP Chemistry students.
- Built multiplayer features with Unity's Netcode and Gaming Services, and applied networking design patterns.

TECHNICAL SKILLS

Languages: Java, Python, C++, C#, JavaScript, TypeScript, HTML/CSS, SQL, Matlab, Racket, Lua
Frameworks/Libraries: React, Node.js, Three.js, d3.js, Node.js, Flask, FastAPI, Tailwind, NumPy, PyTorch, JUnit
Technologies: Git, Docker, Bash, LaTeX, Unity, Godot
Skills: DSA, Machine Learning & AI, Data Visualization, CI/CD, UI/UX Design, Game Developement
Technical Skills: DSA, Machine Learning & AI, Data Visualization, CI/CD, UI/UX Design, Game Developement
Other Skills: 3D-Modeling/CGI, Graphic Design, Editing, Project Management, Social Media Marketing, Teaching