

Joe Chen

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Availability: January – June 2026

EDUCATION

Northeastern University, Khoury College of Computer Sciences

Boston, MA

Bachelor of Science in Computer Science, Minor in Mathematics

GPA: 3.8/4.0 | Sept 2024 - Present

Relevant Coursework: Algorithms and Data, Object-Oriented Design, Computer Systems, Machine Learning and Data Mining 1, Probability and Statistics, Linear Algebra, Foundations of Data Science

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, TypeScript, HTML, CSS, SQL

Frameworks & Libraries: PyTorch, React, Node.js, Next.js, Prisma, OpenCV

Tools: Git/GitHub, Figma, Neon, npm

PROJECTS

AI Local Assistant | *Python, Pytorch, OpenCV, Mediapipe, Faster-Whisperer*

Sept 2025 - Present

- Prototyping a local multifunctional AI assistant (Llama-3.2-11B-Vision-Instruct) with >50% reduced VRAM usage
- Integrating speech-to-text (Faster-Whisper) and computer vision (OpenCV + MediaPipe) for multimodal interactions
- Planning to extend capabilities with gesture-based command recognition and advanced computer interaction features

Resona - Music Analytics App | *TypeScript, Next.js, PostgreSQL, Prisma, Python*

Sept 2025 - Present

- Built a Next.js app integrating Spotify OAuth via NextAuth, designing a Prisma schema to track replayed songs, user ratings, and playback statistics in a Bel-style feedback loop
- Implemented personalized analytics with NumPy, scikit-learn, and pgvector to profile and visualize user music taste patterns, enhancing engagement beyond simple sharing

WORK EXPERIENCE

BCNC Red Oak After School & Summer Program

Boston, MA

Group Leader

Sept 2023 - Aug 2024

- Supervised ~20 children daily, fostering a safe, engaging environment across academic and recreational activities
- Collaborated with staff and external educators to design and deliver curriculum that balanced learning with enrichment

Bob Case Academy: Bridge to Calculus

Boston, MA

Student

Jun 2023 - Aug 2023

- Completed a seven-week intensive summer session at Northeastern University focused on applied mathematics
- Engaged in several workshops spanning college-level math, physics, robotics and game design programming, strengthening computational skills and problem solving

LEAH STEM Teaching Internship

Boston, MA

Youth Leader

Oct 2022 - May 2023

- Supported afterschool STEM programs by teaching hands-on lessons and mentoring ~10 elementary students
- Delivered interactive curricula in science and engineering and served as a role model and consistent mentor