

## EDUCATION

**Northeastern University** – Candidate for B.S. in Computer Science & Music with Concentration in Music Technology | Dec 2026 | Boston, US  
John Martinson Honors Program | Dean's List | National Recognition Scholar | 3.75/4.0

- Relevant Courses: Acoustics & Psychoacoustics of Music | AI for Musical Innovation | Algorithms & Data | Composing with Digital Technologies | Computer Music Fundamentals | Foundations of Cybersecurity | Fundamentals of Software Engineering | Human-Computer Interaction | Introduction to Databases | Music Perception & Cognition | Object-Oriented Design | Projects in Cloud Computing

## SKILLS

**Programming Languages:** Advanced: C++, CSS, HTML, Java, JavaScript, TypeScript | Intermediate: C#, Python, R, Racket

**Languages:** Native: English, Mandarin | Intermediate: German

**Tools & Libraries:** AWS, Git, Google Apps Script, LaTeX, Leaflet.js, MongoDB, Mongoose, Node.js, React, Socket.IO, Vercel

**Other:** APIs, Compression, Digital signal processing, JSON,

Machine learning, Marketing, Media planning, MIDI, Music

composition & production, Music theory, Piano, Sampling,

Vocoders

**Concepts:** Algorithms, Agile, Complexity analysis, Continuous integration & deployment, Data structures, Object-oriented & dynamic programming, RegEx, Unit, integration, & end-to-end testing, Web development

**Applications:** Ableton, Audacity, Blueprints Visual Scripting, Dr. Racket, Eclipse, Figma, IntelliJ, Jupyter, Kontakt, Max/MSP, Pro Tools, Reaper, Unity, Unreal Engine, VirtualBox, Visual Studio, Visual Studio Code

**Frameworks:** Express.js, Next.js, React Native

## WORK EXPERIENCE

**Northeastern Media Studios** – Production Studios Assistant | Oct 2025-Present | Boston, US

- Operated and maintained broadcast and recording equipment across a full-scale production facility, including a television studio, three recording labs, and a dedicated podcast room.
- Audio-engineered and provided technical support for client sessions by troubleshooting issues across hardware, software, and audio interfaces, including Solid State Logic (SSL) consoles and Pro Tools systems.

**Scout Studio** – Senior Developer | Aug 2025-Present | Boston, US

- Built a new website for The Student Kitchen based on client specifications and design team prototypes.
- Mentored and upskilled 2 Junior Developers through code reviews and pair programming, reducing their bug-fix resolution time and enabling them to independently create new features and websites.
- Implemented a comprehensive CI/CD pipeline with a full testing suite (unit, integration, E2E).

**Black Soup GmbH** – Software Engineering & Marketing Co-Op/Intern | Feb 2025-Jun 2025 | Berlin, DE

- Led 4 organic marketing campaigns for video game titles (*Lost Records: Bloom & Rage*, *Memoriapolis*, *Palia*, *Rooftops & Alleys*), executing influencer outreach and digital strategy that collectively garnered over 5M impressions and 250K engagements across social platforms (YouTube, Twitch, X, TikTok).
- Acted as a primary point of contact for major clients (*KRAFTON*, *Radical Theory*, *Riot Games*, *Singularity 6*), presenting campaign performance data that contributed to 2 contract renewals and secured a 15% increase in a quarterly paid media budget from one client.
- Managed and coordinated a total of 10+ paid creators, facilitating content creation and timely payments, which directly contributed to driving over 1M combined views on campaign-related content.
- Engineered Google Apps Scripts to automate media planning and reporting, decreasing campaign setup errors by 90%.
- Contributed to designing a centralized campaign database by migrating 4+ years of historical data, decreasing the average time for building media plans from 4 hours to 1 hour and enabling data-driven strategy shifts.
- Proofread and revised the English localization of PEPPERED on Steam in assistance for the official game launch.

## PROJECTS

**NUCircle** – Sep 2025-Present

- Architected and implemented a real-time multiplayer trivia game system using Socket.IO and Express.js, featuring synchronized game state management, automatic tiebreaker resolution with timer-based logic, and persistent game sessions stored in MongoDB with in-memory caching for consistent sub-100ms response times.
- Onboarded to a full-stack TypeScript Q&A platform and implemented RESTful APIs with OpenAPI validation, JWT authentication middleware, real-time messaging via WebSocket connections, and MongoDB database architecture, collaborating with a team of three other members.

**Garment Genie** – Nov 2023-Present

- Programmed a browser extension that recommends similar clothing items on Depop, Poshmark, and ThredUp as alternatives to products the user is browsing on Shein, successfully matching items with over 85% accuracy based on product title and source code analysis.
- Created a recommendation logic algorithm that utilizes DOM code and page information to give accurate recommendations to the user, and kept track of the user's recent recommendation history.

**OpenBnB** – Nov 2024

- Developed the front-end architecture for a platform connecting disaster evacuees with local hosts, collaborating with a team of four to build a user registration database with Firebase, and implemented geolocation for listings and deployed the platform on Vercel.

**Light 'Em All** – Apr 2024

- Engineered a pipe-connection puzzle game implementing breadth-first search and Kruskal's algorithm for win-condition validation and board generation.

**Sugar Sprint** – Oct 2023

- Composed and produced 1 soundtrack for a 2D platformer game.