# Benjamin Ledoux

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## Education

**Northwestern University** *Sep 2024 – Dec 2025*
*MS in Computer Science*, GPA: 3.74/4.0
- **Coursework:** Algorithms, Artificial Intelligence, Machine Learning, Deep Learning, DL for Natural Language Processing, Intro Parallel Computing, Agent Based Modeling, AI in Software, Software Design, Intro Networking, Intro Computer Graphics, Game Design

**Connecticut College** *Sep 2020 – May 2024*
*BA in Computer Science*, GPA: 3.86/4.0, Cum Laude, Dean's Honors
- **Coursework:** Algorithms, Software Engineering, Computer Architecture, Data Structures, Object Oriented Programming, Discrete Math, Intro Networks, Intro Cybersecurity, Digital Sound Processing, Entertainment Software Design, Virtual Environments, Time-Based Digital Art

## Experience

**IT Support** *Beverly, MA*
*Massachusetts Task Force 1* *June 2023 – Aug 2023*
- Recording map of entire local fiber network
- Consultation on unification of communication platforms
- Maintenance and setup of security camera network

**Ammerman Scholar** *New London, CT*
*Ammerman Center for Arts and Technology* *Jan 2022 – May 2024*
- Competitive certificate program
- Independent study focused on intersection of art and technology
- Developed a world generation framework for Unity (See Procedural Generation Framework under **Projects**)

**Teaching Assistant** *New London, CT*
*Connecticut College Computer Science Department* *Sep 2022 – May 2024*
- Tutor, grading, and coding labs for Intro, Computer Architecture, and Entertainment Software courses.
- Shared expertise with Python, C#, and Unity to guide students in assignments and projects.

## Proficiencies

**Technologies:** AI, Machine Learning, Neural Networks, Unity
**Coding:** Python, C++, C#, Java

## Projects

**Bot Bowl Evolution** ⬈
- Evolved a competitive agent for Bot Bowl ⬈ using a genetic algorithm to refine an expert system.
- Tools Used: Python, OpenAI Gym library, BotBowl library

**Procedural Generation Framework** ⬈
- Framework for generation of tile-based maps in Unity engine.
- Tools Used: C#, Unity

**Music Box** ⬈
- MP3 player with downloading, playlists, fade in/out, and other features.
- Tools Used: Python, TKinter library, yt_dlp library