

# Benjamin Ledoux

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## Education

### Northwestern University

Sep 2024 – Dec 2025

MS in Computer Science, GPA: 3.78/4.0

- **Coursework:** Game Design, Artificial Intelligence, Machine Learning, Deep Learning, DL for Natural Language Processing, Algorithms, Intro Parallel Computing, Agent Based Modeling, AI in Software, Software Design, Intro Networking, Intro Computer Graphics

### Connecticut College

Sep 2020 – May 2024

BA in Computer Science, GPA: 3.86/4.0, Cum Laude, Dean's Honors

- **Coursework:** Entertainment Software Design, Algorithms, Software Engineering, Computer Architecture, Data Structures, Object Oriented Programming, Discrete Math, Intro Networks, Intro Cybersecurity, Digital Sound Processing, 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 2D tile-based games in Unity.

### Teaching Assistant

New London, CT

Connecticut College Computer Science Department

Sep 2022 – May 2024

- Tutor, grading, and coding labs for Entertainment Software, Intro CS, and Computer Architecture courses.
- Shared expertise with Python, C#, and Unity to guide students in assignments and projects.

## Proficiencies

**Technologies:** AI, Machine Learning, Neural Networks, Gameplay programming, Reinforcement Learning

**Coding:** Python, C++, C#, Java

## Projects

### Driver's Ed [↗](#)

- Simple arcade-style driving game.
- Tools Used: C#, Unity

### 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