LIAM **GATES**

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Education

University of Massachusetts Amherst	Expected Graduation: May 2025
Bachelor of Science: Computer Science	GPA: 3.97

Relevant Coursework: Programming with Data Structures, Programming Methodology, Software Engineering, Operating Systems, Algorithms, Artificial Intelligence

Skills

Languages: Python, JavaScript, C, C++, TypeScript, Java, CSS, HTML
Frameworks: React.js, node.js, Flask, Git, Unix, Scrum/Agile

Projects

Chess Engine
GitHub

Python
Dec. 2022

- Designed and implemented a sophisticated Chess Engine focusing on user experience and advanced artificial intelligence.
- Engineered an intelligent AI opponent using alpha-beta pruning and multiprocessing, enhancing the gameplay.
- Integrated dynamic game animations through the pygame library, adding a visually engaging element to the user interface.

Algorhythmz @HackUMass 2023
GitHub

React.js + Python
Nov. 2023

- Integrated React user interface, enhancing user experience for topic selection in a rap song application.
- Implemented a robust Client-Server model using Flask to facilitate efficient communication between the frontend and backend.
- Engineered a lyric generation system employing Natural Language Processing (NLP) techniques.

Work Experience

Department of Conservation and Recreation
Lifeguard

Worcester, MA
June 2022 – Aug. 2023

- Managed the safety of the pool by enforcing rules and policies.
- Provided customer service to 500+ patrons.
- Performed rescue and emergency procedures, such as CPR and first aid.
- Collaborated with other lifeguards to ensure a safe and enjoyable environment for patrons.
- Conducted regular pool inspections and maintained safety equipment.