# Jacob Nelson

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Computer science/software engineering student working on bachelor's degree, looking to gain experience with software development, web development, and various programming languages, in the effort to build a career as a full-stack developer. Highly self-motivated and adaptable, with an excitement for learning about new technologies and solving problems. Hoping to join a team or a company that shares these values.

### Education

Associate's Degree in Computer Science, Middlesex Community College (2018-2020)

**GPA:** 3.50

**SKILLS LEARNED:** Basic to intermediate programming in C/C++ and Java, object-oriented design, x86 assembly language, developing in Linux/UNIX environment, BASH shell, GUI design, data structures, algorithms.

FAVORITE COURSES: Data Structures, Calculus II, Programming III, Assembly Language

ACHIEVEMENTS: Merit's List Spring 2019, Merit's List Fall 2019

#### **NOTABLE PROJECTS**

Connect Four Console Game | https://github.com/jakenelsonnn/Connect-Four

-implemented a tree-based minimax algorithm to program an AI to play against the player. Written in Java.

Hospital Patient Database Simulator | https://github.com/jakenelsonnn/Patient-Database

-built a hashmap data structure and used file reading/writing to store and edit information about patients in a hospital. Written in Java.

Bachelor's Degree in Computer Science, University of Massachusetts Lowell (2021-2022)

**GPA:** 3.50

**SKILLS LEARNED:** Advanced programming topics in C/C++, unit testing with BOOST libraries, GUI design with SFML libraries, regular expressions, memory management, recursive programming, logic circuit design, CPU hierarchy, design patterns.

**FAVORITE COURSES:** Computing IV, Logic Design, Discrete Structures

#### **NOTABLE PROJECTS**

N-Body Simulator | https://github.com/jakenelsonnn/PS2-N-Body-Simulation

-used Newton's law of universal gravitation to calculate pairwise force between celestial bodies using their mass, position, velocity, and acceleration to display the celestial bodies in motion on an animated SFML window. Written in C++.

LFSR-based image scrambler/descrambler | https://github.com/jakenelsonnn/PS1-Linear-Feedback-Shift-Register

-implements a linear feedback shift register algorithm to encrypt or decrypt an image. Written in C++.

## Other Skills and Programming Languages

-HTML/CSS/Javascript -Python -C#
-Unity -Windows/Mac/Linux -Studio

-Netbeans/Eclipse -Writing -Communication