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# Matthew Mabrey

Portfolio Website: [mattmabrey1.github.io](https://mattmabrey1.github.io)

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## EDUCATION:

**The College of New Jersey, Ewing NJ** Anticipated May 2021, 4.0/4.0 GPA  
*Bachelors of Science, Computer Science*

**Rowan College at Burlington County, Mount Laurel NJ** Summer 2019, 3.93/4.0 GPA  
*Associates of Science, Computer Science*

*Notable Coursework:* Object-oriented Programming & Data Abstraction, Machine & Assembly Language Programming, Calculus II & Analytic Geometry, Discrete Structures, Computer Architecture, Artificial Intelligence, Analysis of Algorithms, Fundamentals of Web Design

*Notable Achievements:* Achieved Dean's List every semester completed at both Rowan at Burlington County College and The College of New Jersey and currently a member of Mu Alpha Theta Mathematics Honor Society

## SKILLS:

**Strong with C++, C#, C, and Java. Proficient with Python. Firm grasp of many programming concepts.**

- Familiar with program IPO documents, UML Diagrams, and Agile principles including the Scrum framework

**Proficient with HTML, CSS, and Javascript to build and design websites**

**Strong with Microsoft Office Suite, Adobe Photoshop, and Unity Engine**

## PROJECTS:

### A\* Search Path Finding — Artificial Intelligence Project Spring 2020

- Program written in Python for retro arcade game which returns the shortest path in a 2D matrix to the target location using A\* Search with a priority queue

### Arduino RepairMan — Global Game Jam Team Project Spring 2020

- Physical game created for Global Game Jam 2020 game design hackathon using an Arduino and several I/O devices where the player must decipher the instructions to solve puzzles before the time runs out and it "blows up"

### Demolition Derby Game — Independent Video Game Project Summer 2019

- Coded and created assets for independent 3D video game project in Unity Engine using C# in Microsoft Visual Studio and Blender respectively

### Hangman Game — Course Final Project Spring 2019

- Assembly language "Hangman" game using Microsoft Macro Assembler(MASM) as final project for Machine & Assembly Language Programming course

## RESEARCH:

### Device Security — Computer Science Undergraduate Research RCBC Fall 2018

- Researched security flaws in current mobile device technology personally focusing on comparing the malware and virus vulnerabilities of popular mobile operating systems and assessing the security options currently available to consumers