

# River Marks

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## OBJECTIVE

Seeking a Co-op for the 2020 spring and/or summer in Software Development.

## SKILLS

C#, .NetCore, GraphQL, GraphQL .Net, Python, NodeJS, Git, GitHub, JavaScript, Markdown, C

## EDUCATION

### ROCHESTER INSTITUTE OF TECHNOLOGY – 3.66 GPA

B.S. in Computer Science  
2018 – 2023 (Expected)

## ORGANIZATIONS

### COMPUTER SCIENCE HOUSE

Member August 2018 – Present

Computer Science House is an organization that has given me the grounds to do projects and gain the technical skills that I would not have gotten otherwise.

### BOY SCOUTS OF AMERICA

Achieved Eagle Scout

My Eagle Scout Project including designing & placing signage along a 5K trail in the West End Regional Park. It also included creating three benches & placing those along the trail as well.

### FUTURE BUSINESS LEADERS OF AMERICA

Three-time state level competitor

Competed in Business Communications for two years & competed in Computer Problem Solving for the final year at the competition.

## EXPERIENCE

### SOFTWARE ENGINEERING INTERN • THORLABS

May 2019 – August 2019

- Developed a POC for utilizing GraphQL & C# .Net Core to interface with Cosmos DB
- Developed a method of translating GraphQL requests into SQL queries dynamically
- Developed algorithms for filtering data dynamically
- Translated the existing REST defined model into GraphQL
- Load tested the written parts of API using Locust.IO & python
- Created unit tests for all of the GraphQL related API pieces

## PROJECTS

### PROJECT LOREMASTER • NodeJS, MySQL, GraphQL • September 2019 - Present

- Connection established between MySQL & NodeJS Server
- Implemented 2D array used for filtering data from server
- Working towards establishing a schema for querying
- Determining structure for data to be stored in the MySQL DB

### FUTURISTIC CAR MUSIC SYSTEM • JavaScript • February 2019 – June 2019

- Connecting to Spotify API by using a RESTful API
- Voice inputs passed to this through query requests
- Plays songs from Spotify through connected speakers

### SPACE PIRATES • C# & MonoGame • January 2019 – April 2019

- Created a dynamically generated dungeon drawing system using the a\* path finding algorithm
- Using the same algorithm, established enemy path finding
- Created a map to display the rooms that have been entered
- Managed the teams work and delegated work to other members

### BREAKWATER GAME ENGINE • C# • January 2019 – March 2019

- Team project that uses the MonoGame Graphics Library
- Implemented Pathfinding for enemy AI based on 2D 'Node' grid
- Implemented Quad Tree for collision checking in the world

### CONSOLE SIDE SCROLLER • C++ • December 2018

- A game that utilizes pointers & classes to update console window
- Compared the different methods of printing data from memory
- Looking for the most efficient way to display on console window

### CONCORIA • GML • September 2018 – December 2018

- Worked with another student to create an open world game
- Created a template to build any size house that players may walk into & interact with top instance that fades out
- Created a method of storing & saving all instances on screen
- Instituted the merge sort algorithm into the saving to make the loading of the instances saved faster