

# Colin Quelle

1327 Surrey Lane, Rockville Centre NY 11570 | 516-526-2487 | colinquelle@yahoo.com | <http://www.linkedin.com/in/colinquelle> |  
<https://github.com/cquelle3> | <https://cquelle3.github.io>

---

## EDUCATION

### Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science

*Bachelor of Science in Computer Science*

**August 2018 – May 2021**

Major GPA: 3.61/4.00 | Cumulative GPA: 3.41/4.00 | Dean's List: Fall 2020 – Spring 2021

### Drexel University

*Bachelor of Science in Computer Science*

**September 2017 – June 2018**

Cumulative GPA: 3.43/4.00

---

## TECHNICAL SKILLS

**Languages/Frameworks:** Java, Python, C/C++, C#, Swift, JavaScript, TypeScript, HTML, CSS, Angular, React, MongoDB, Express.js, Node.js, LoopBack, Django, Flask, SQL, MySQL, SQLite

**Software and OS:** XCode, Eclipse, Git, Linux, OS 10, Visual Studio Code, AWS

**Additional:** Photoshop, Unity, Logix Pro X, Microsoft Office

---

## PROFESSIONAL EXPERIENCE

### GSE Solutions, Full Stack Engineer | Remote

**January 2022 - Present**

- Developing a web-based application using MEAN Stack to display nuclear powerplant data to customers and internal engineers
- Creating backend methods using NodeJS and LoopBack to connect an Angular frontend to MongoDB database
- Utilizing Flask and Python to create a separate backend used to pull data from MongoDB and perform calculations
- Testing and hosting versions of the application on Amazon Web Services EC2 Cloud instances

### Urvin AI, Research Internship | Remote

**August 2021 – October 2021**

- Investigated future technologies and studies involving AI music analysis and AI music generation
- Utilized various artificial intelligence libraries in Python, C++, and Javascript to extract musical data from audio files
- Compiled audio samples and documents to organize and present findings for senior software engineers

### TechWorks, Game Development Internship | Binghamton, NY

**January 2021 – May 2021**

- Developed a 2D Space Survival Game using Unity and C# for Binghamton's Center for Technology and Innovation
- Worked Weekly with a team to coordinate gameplay and game progression elements
- Created working Item, Inventory, Crafting, Events, and Tutorial systems that interacted with each other through the game

---

## PROJECT EXPERIENCE

### Binghamton University, Swift Co-Programmer | Binghamton, NY

**February 2021 – May 2021**

- Developed the interface for a server-based Music Roulette game for iOS13
- Utilized iOS Tables and the Safari Services framework to create a grocery list app that could connect to the Wegman's website
- Learned to create interactive iOS games and drawing apps using SpriteKit and UIKit

### Binghamton University, Java Co-Programmer | Binghamton, NY

**August 2018 – May 2021**

- Created programs that used multiple design patterns, such as Decorator Pattern, Abstract Factory Pattern, and State Pattern
- Implemented the Pippin assembler in Java to take in and assemble an assembly file, and display the memory content into a GUI
- Utilized GitHub's Version Control System to manage project files, which met specifications using JUnit testing

### Binghamton University, C++ Co-Programmer | Binghamton, NY

**January 2019 – December 2020**

- Created a program implementing Dijkstra's algorithm to calculate shortest paths between nodes
- Compared the accuracy and run times of greedy algorithms and dynamic programming for the 0/1 Knapsack problem
- Created programs that sent messages over TCP and UDP connections between a client and server

### Drexel University, Unity Game Developer | Philadelphia, PA

**January 2018 – June 2018**

- Designed UI, game layout, characters, backgrounds, and title screen, using Aseprite, to create artwork for the project
- Presented game demos to professors and other Computer Science students to showcase ideas and progress