**Nicholas Vallejos**

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# EDUCATION

**Binghamton University, State University of New York May 2020**

*Bachelor of Science in Computer Science*

# GPA: 3.40/4.00

**TECHNICAL SKILLS**

**Languages:** Java, C#, C++/C, JavaScript, Python, HTML/CSS

**Software and OS:** git, bash, ReactJS, Linux, Windows 10, Visual Studio 2019, Unity3D, Eclipse, Android Studio

**Additional:** basic SQL, basic NodeJS, TCP/IP familiarity, UDP familiarity, Apache Ant

# PROJECT EXPERIENCE

**Amazon Clone, React** | Mamaroneck, NY **December 2020**

* Programmed an Amazon website clone utilizing React function components and vanilla CSS for styling
* Deployed application on Firebase and used Firebase for login authentication
* Used React context to broadcast product data to multiple components
* Utilized git for source control and pushed to public github repository

**Unity2D Android Mobile Game, C# Programmer** | Mamaroneck, NY **May-June 2020**

* Developed a mobile game using the Unity2D game engine where the objective of the game is to jump over an endless wave of obstacles to accumulate as many points as possible
* Programmed a collision detection system that uses invisible rays to determine the distance between the player and the environment
* Designed and implemented an obstacle spawn algorithm that will generate an obstacle every ‘x’ seconds where ‘x’ is equal to a random value between 0.25 and 1
* Utilized git for version control and Trello for project management
* Published the game to the Google Play Store and received 16 downloads from users in the US and 3 other countries

**Map Container, C++ Programmer** | Binghamton, NY **April 2019**

* Recreated the std map container in 700 lines of code using template metaprogramming technique which allows the user to define a map of any type
* Utilized Valgrind to track and resolve memory leaks
* Programmed a skip-list data structure allowing for O(log(n)) insertion time and search time
* Implemented Iterator, ReverseIterator, and ConstIterator sub-classes for map traversal
* Pushed source code to Github repository

# Random Music Generator, Android App, Java Co-Programmer | Binghamton, NY February 2019

* Designed and implemented an android application that generates short music tracks with randomly generated notes using a custom music generation algorithm for a 1-day hackathon event
* Designed a simple UI through Android Studio that allows the user to easily customize the music generation algorithm
* Utilized Trello to visualize the projects goals and split up work amongst a 3-person team of programmers
* Used Git for source control
* Published app to the Google Play Store

# PROFESSIONAL EXPERIENCE

**IT Intern, Westchester County Government** | White Plains, NY **June-August 2018**

* Organized server logs in Excel documents to facilitate server maintenance
* Learned Java codebase and Microsoft SQL Server 2014 with the help of another software engineer
* Wrote Java and JSP code in Eclipse IDE that generates and displays a table of all users that have accessed a server
* Utilized SVN plugin for source control

# Employment

**Camp Counselor, Village of Mamaroneck Day Camp** | Mamaroneck, NY **Summer 2014-2016**

* Responsible for overseeing and engaging with groups of over 25 campers ranging from 1st to 4th grade
* Participated in outdoor activities and led icebreakers
* Communicated effectively with co-counselors and supervisors