

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

CAPABILITIES

Programming Languages: Java, C#, JavaScript, C++, C, Python, Haskell, Prolog, Lua

Mobile Development & Game Development: Java & Android Studio, C# & Unity Game Engine, C++ & Unreal Engine 4

Frontend Web Development: HTML, CSS, JavaScript, React

Software and OS: git, bash, Linux, Visual Studio, Aseprite

Additional: SQL, Node, Microsoft SQL Server, TCP/IP, UDP, Apache Ant, Trello, Github Pages

PROFESSIONAL EXPERIENCE

IT Department Internship, Westchester County Government | White Plains, NY

June-August 2018

- Responsible for organizing server logs in Excel documents to facilitate server maintenance
- Learned the basics of Microsoft SQL Server 2014
- Updated their Java codebase through implementing new JavaBeans
- Created a webpage using HTML and JSP that displays users who accessed servers

PROJECT EXPERIENCE

Portfolio Website, HTML & CSS & React | Mamaroneck, NY

December-January 2021

- Independently developed and implemented a single-page, responsive portfolio website that focuses on being mobile friendly
- Organized into three sections including an About section, a Project section which showcases my published games and apps, and a Contact form section
- Utilized third-party email service EmailJS to manage sending and receiving messages from the Contact form

Amazon Clone Website, HTML & CSS & React | Mamaroneck, NY

December 2020

- Created an e-commerce website that looks similar to Amazon using React
- Features a homepage, a checkout page, and a login page
- Utilized Firebase API for login authentication allowing users to create their own accounts and sign-in to the website
- Implemented ability to add items to a virtual shopping cart which are then displayed on the checkout page
- Deployed application using Firebase console

Goo Runner, C# Programmer & 2D Artist | Mamaroneck, NY

May-June 2020

- Independently developed a game using Unity2D game engine where the objective is to jump over an endless wave of obstacles to accumulate as many points as possible
- Programmed a random level generation system and a collision detection system
- Learned how to use pixel art software Aseprite to create all of the art assets
- Published on itch.io and the Google Play Store and provided post launch support

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

February 2019

- Designed and implemented an android application with two other programmers for a 1-day hackathon event
- Generates short music tracks with randomly generated notes using a custom music generation algorithm
- Responsible for creating the UI through Android Studio which allows the user to easily customize the music generation algorithm
- Presented project to multiple judges and got second place in the Media & Entertainment category
- Published app to the Google Play Store

Map Container, C++ Programmer | Binghamton, NY

February 2019

- Independently recreated the Map data structure from the Standard Template Library following the template metaprogramming technique for a course project
- Debugged using Valgrind to track and resolve memory leaks
- Programmed an internal skip-list data structure to store Map data elements which allowed for $O(\log(n))$ insertion time and search time
- Implemented three sub-classes including Iterator, Reverseliterator, and Constliterator which are wrappers around a pointer to an element inside the Map and provide safe traversal around the data