

Dat Quach

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University student with more than one year of experience with C#, competitive programming using C++, familiar Java and Python code; has experience in C# Windows Form through small projects and intermediate knowledge about Unity and MonoGame; can comprehend code documentation and explain algorithms and data structures in an easy-to-understand way.

Skills & Abilities

- Skilled in using C#, C++, Java, Python.
- Intermediate and basic knowledge about Unity and MonoGame.
- Proficient in using Windows and Linux environments.
- Coached and trained high school students on-campus for a provincial programming contest.

Education

BACHELOR OF SCIENCE | EXPECTED AUGUST 2022 | FAIRLEIGH DICKINSON UNIVERSITY, CANADA

- Major: Information Technology.
- Related coursework: Interactive Python Programming with Jupyter Notebook, Information Technology Needs Assessment and Management, Website Design and Management.
- School Highlights:
 - Entrance Scholarship 50% - Academic Achievements.
 - Maintain a GPA of 4 throughout the last semester.
 - Active staff member in the university's coding club.
 - Provide IT support for several school activities.

HIGH SCHOOL DIPLOMA | AUGUST 2018 | TRAN BIEN HIGH SCHOOL, VIETNAM

- School Highlights:
 - First prize in province-level programming contest in grade 12.
 - Ranked 12 out of 15 students provincially-nominated for the national programming contest in grade 12.
 - Provide support for students in the school's competitive programming team to prepare for contests.

Experience

STORE ASSOCIATE | WINNERS | OCTOBER 2018 - PRESENT

- Constantly improve self's customer service skills in a fast-paced environment.
- Proficient at working with POS systems as a cashier; assisted in POS systems troubleshooting as needed
- Load boxes, unload merchandise and clean up warehouse.

Projects

SNAKE GAME

Object-Oriented Game Development, C# Windows Form

A small project to recreate a basic snake game: A simple snake is controlled by players using Up, Down, Left, Right keys to eat food. The snake continues from the opposite side of the screen when it hits screen edges, and dies when it bites itself.

- First step to game programming and development.
- Used C# PictureBox as a canvas and learnt events handling.
- Implemented functionalities with external frameworks and packages.

CHEST COMMANDS GUI EDITOR

Object-Oriented Software Development, C# Windows Form

A project to build an application which allows people to configure data and generate files for Chest Commands GUI (a plug-in for Minecraft servers). The application is able to load data from and save data to files in an appropriate YAML format. The application also offers a clean and easy-to-use graphical user interface.

- Developed and implemented different data structures.
- Utilized uses of external frameworks and packages in YAML data serialization and user interfaces.
- Dealt with performance issues and optimization of several functionalities like item name searching and real-time previews of item tooltips and YAML data.
- Learnt more about C#, Windows Form and Object-Oriented Programming: Delegates, Interfaces, Inheritances, Extensions.

CODE4FUN WEBSITE

Web Design and Development with HTML and CSS

A team project to help team members learn about web development, Git workflow and to create a website for the university's coding club.

- Proposed changes to the team's coding conventions.
- Reviewed and fixed syntax and style errors in HTML files.

SIMPLE TETRIS GAME

Object-Oriented Game Development, MonoGame with C#

- Learnt MonoGame basics: MonoGame content manager, game components, classes and methods.
- Learnt similarities between MonoGame and Microsoft XNA.
- Learnt and implemented builder design pattern.

UNITY SNAKE GAME

Object-Oriented Game Development, Unity 2D with C#

An attempt to recreate a simple snake game from the ground of the old snake game project.

- Learnt the differences between programming with and without game frameworks.
- Optimized performance of functions that check for snakes' self-hitting.
- Implemented visitor design pattern.

NENEMAZE GAME

Object-Oriented Game Development, Unity 3D with C#

A small project to recreate a maze game inspired by the NENEMAZE game in the anime New Game! A player controls a ball throughout randomly-generated mazes to advance to next levels.

- Learnt Unity 3D basics.
- Used math to rotate the maze platform and change the transform of the main camera in accordance with the mouse position on the screen.

Leadership and Volunteer Experience

CODE4FUN STAFF MEMBER | FAIRLEIGH DICKINSON UNIVERSITY | DECEMBER 2018 – PRESENT

- Coordinated with other staff members to plan for the club's meetups, talks and meetings.
- Built relationships with former students and especially those who are in the IT fields.