Thomas Vy

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A motivated and reliable software engineering graduate with a programming background in automation and build systems. Currently seeking a permanent full-time software developer position with the possibility to evolve into a leadership role.

EDUCATION

Bachelor of Science in Software Engineering September 2016 – May 2021
Schulich School of Engineering, University of Calgary

- Graduated with Distinctions and Internship Program, 3.89/4.00 GPA.
- Completed courses in Data Structures & Algorithms, Operating Systems, Data Base Management Systems, Networks, Graphics Programming, and Computer Security.

SOFTWARE SKILLS

Proficient Software: C/C++, Python 3, JavaScript, Java, Git/GitHub.
Familiar Software: React, HTML/CSS, MySQL, PowerShell, Batch, Bash, PHP, Laravel, OpenGL, Squish GUI Tester, Qt, XPath, Team Foundation Version Control.

RELEVANT EXPERIENCE

Software Developer Intern May 2019 – August 2020
GEOSLOPE International Ltd., 700 6 Ave SW #1200

- Assisted in software development by implementing C++ control code along with UI dialogue boxes which led to release date reliability.
- Increased UI test coverage by introducing Squish GUI test to the nightly builds which led to an increase of UI bugs being caught.
- Modernized build systems by moving builds systems from Team Foundation Server to Azure Pipelines which led to faster build times.
- Taught colleagues the basics of Git/GitHub by presenting a lunch and learn on Git which led to a help document being developed.
- Increased team's efficiency by implementing PowerShell/Batch scripts to automate check-in testing which led to a decrease in bugs being merged into the main branch.
- Obtained a solid understanding of leadership skills by acting as a stand-in team lead for stand-ups, backlog grooming, retrospective, and sprint planning.

Software Team Member October 2018 – January 2021
University of Calgary's Solar Car, University of Calgary

- Upgraded car's functionality by helping develop a song player in Qt and C++ which led to a deeper understanding of planning.
- Successfully wrote documentation for porting software code from Linux to Raspberry Pi by testing various methods and modifying code that enabled code to run in the car.
- Educated recruits on Git/GitHub by performing a Git/GitHub presentation which led to recruits being able to properly perform version control tasks.

- Successfully expanded the software team by developing interview questions and performing recruitment interviews.

Summer Researcher Assistant May 2018 – August 2018
Robotics and Sensor Network Group, University of Calgary

- Obtained an understanding of automation by creating a navigation system written in C++ and Python which led to a robot traversing a room autonomously.
- Developed a mapping program for the robot by converting LIDAR data to a visual representation of the room using C++.
- Improved my communication and presentation skills by teaching colleagues how to use ROS, C++, and Python.

Software Team Member September 2017 – April 2018
Schulich Unmanned Aerial Vehicle, University of Calgary

- Created a Python program to merge two individual planned paths for the aeroplane.
- Designed a multi-threaded server and client application for communication between the primary server and multiple clients to process images faster.
- Analyzed camera qualifications to find a camera that can get live feedback and a record at the same time.
- Investigated an operating system called FlytOS to work with the Raspberry Pi inside the aeroplane to understand the features and capabilities of the operating system.

SOFTWARE PROJECTS

MoshirLearning (https://github.com/ThomasVy/MoshirLearning)

- Designed and developed a server-client application that allows teachers and students to access their courses (Similar to the D2L website). Teachers can edit their courses, add new courses, and manage students in courses.
- Integrated a MySQL database on the server to house the login information.
- Written using Java, MySQL, and network sockets.
- Received an outstanding final project reward in 2018.

Spaceship Game (https://github.com/ThomasVy/Spaceship-game)

- Created a game that controls a spaceship to collect gems scattered randomly on the screen. The game ends when all gems are collected without touching a fire object.
- Uses mouse clicks and WASD keys to navigate the spaceship around the map.
- Uses C++, matrix manipulation, OpenGL's texture mapping, instancing, vertex shader, and fragment shader to render images on the screen.

PLC Processor

- Designed and developed a web application to retrieve one-minute PLC data and validate/calculate hourly data to store into a local database.
- Integrated a front-end component that can manually insert one-minute and one-hour data and re-map data parameters.
- 4th-year team Capstone project for Global Analyzer Systems Ltd. Worked closely with Global Analyzer Systems Ltd. to meet their project requirements.
- Written in JavaScript, HTML/CSS, Node.js, and WebSockets.