

THOMAS VY

vythomas97@gmail.com • (403) 389-4180

[linkedin.com/in/thomas-vy](https://www.linkedin.com/in/thomas-vy) • github.com/thomasvy

thomasvy.github.io/Website

SOFTWARE SKILLS

PROFICIENT LANGUAGES: C/C++, REACT, TYPESCRIPT, PYTHON 3, SQL

PROFICIENT TOOLS: GTEST/GMOCK, GIT/GITHUB, VISUAL STUDIO/VS CODE, NODEJS, DOCKER, CMAKE, WINDOWS, POWERSHELL, BASH, OPENGL, JENKINS

EXPERIENCE

SOFTWARE ENGINEER II CISCO SYSTEMS, INC.

OCTOBER 2021 - PRESENT

- Increased the speed of file exclusions by up to 1000% by implementing trie trees.
- Coordinated and lead the successful porting of x64 C++ software to ARM64EC.
- Improved zip file scanning speed by up to 23% via removing temporary file writes.
- Redesigned in-house acceptance test framework from reading logs files to gmocks to reduce false positive by 80%.
- Resolved multiple support cases by communicating and cooperating with other teams to resolve customers' issues.
- Applied TDD to develop robust software via unit tests, component tests, and acceptance tests.
- Modernized code base by implementing design patterns, integrating SOLID principles, updating to C++20, deprecated old Operating Systems (Windows 7/Windows 8/32-bit).

SOFTWARE DEVELOPER INTERN GEOSLOPE INTERNATIONAL LTD.

MAY 2019 – AUGUST 2020

- Designed and developed GUI dialog boxes and control code using MVC, C++, and MFC Library.
- Increased UI test coverage by developing Squish GUI tests and integrating them into 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 20% faster build times.
- Taught colleagues Git/GitHub by presenting a lunch and learn which led to the adoption of Git.

SOFTWARE TEAM MEMBER UNIVERSITY OF CALGARY'S SOLAR CAR TEAM

OCTOBER 2018 – JANUARY 2021

- Upgraded car's functionality by helping develop a song player in Qt and C++ which led to a deeper understanding of software development lifecycle.
- Developed and documented a process for cross platform compilation from Ubuntu to Raspberry Pi OS.
- Educated recruits on C++ and Git/GitHub by performing presentations, code reviews, and pair programming.
- Developed soft skills by conducting recruitment interviews, cooperating, and planning code structuring with teammates.

PROJECTS

INVENTORY TRACKER

GITHUB.COM/THOMASVY/INVENTORYTRACKER

- Created a web application with JWT token authentication to track a user's inventory, orders, and analyze trends in sales.
- Written using MongoDB, Express, React, NodeJS, Typescript.

MOSHIRLEARNING

GITHUB.COM/THOMASVY/MOSHIRLEARNING

- Designed and developed a server-client application that allows teachers and students to communicate and manage their courses and coursework.
- Written using Java, MySQL, and TCP sockets.
- Received an outstanding final project reward in 2018.

SPACESHIP GAME

GITHUB.COM/THOMASVY/SPACESHIP-GAME

- A video game that demonstrates knowledge of GPU render pipeline, vertex manipulation, animation frames, and object life cycles.
- The user manipulates a spaceship to collect gems while avoiding all obstacles.
- Written using C++, and OpenGL.

P2P MESSAGING APP

GITHUB.COM/THOMASVY/P2P-MESSAGING-APP

- Designed and developed a messaging application that uses peer-to-peer networking to send text snippets to other users.
- The application initiates a connection to a registry using TCP to collect peers' information, then uses UDP to communicate directly with users.
- Written using Python 3, TCP/UDP sockets, and thread programming.

EDUCATION

BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING UNIVERSITY OF CALGARY

SEPTEMBER 2016 - MAY 2021

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

CERTIFICATIONS

CERTIFIED SCRUMMASTER (CSM) SCRUM ALLIANCE

APRIL 2023 – APRIL 2025

GIAC SECURITY ESSENTIAL CERTIFICATION (GSEC) GIAC CERTIFICATIONS

JANUARY 2023 – JANUARY 2027