Vicky Nguyen

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Education

Bachelor of Computer Science - Honours ***8.16/9 GPA***

- Expected graduation date May 2023. University of Victoria.

Relevant Courses

- Algorithms and Data Structures, Database Systems, Operating System, Computer Networking, Massive Datasets, Programming Languages, Compiler Construction, Advanced Programming in C++, Exploiting Modern Hardware (Parallel Computing), Data Mining, Randomized Algorithms, Music Information Retrieval

Activities

- President of the UVic Programming Club (Jan 2021 - Sep 2022)
- Took part in the ICPC (International Collegiate Programming Contest) in 2019, 2021, and 2022 (ranked 20/62 teams in Pacific Northwest region).
- Currently ranked **top 3** in UVic Kattis Ranklist.
- Honours **research** project: By using the data from StackOverflow, the goal of this project is to use data mining and machine learning to identify patterns of adoption and use of programming languages

Languages and Tools

Proficient: C++, Python, Git, Linux, Vim, Bash Script, SQL
Have worked with: JavaScript, Java, C, C#, OpenMP, Scala, Spark, Flask, Android Studio
Learning: Haskell

Experience

IBM - C/C++ Compiler Developer Intern ***Sep 2022-Dec 2022/Markham, ON Canada***

- Develop C/C++ compiler technology and contribute to the LLVM community. This process mostly involves inspecting and writing LLVM IR code, bash scripting, and Git.
- Run SPEC benchmarks and evaluate the compiler performance when setting different values of some parameters.
- Experiment some (new) internal and external compiler optimization methods.

University of Victoria - Teaching Assistant ***Jan 2022-Apr 2022/Victoria, BC Canada***

- Helped first and second year students with algorithm and data structures courses, programming courses (C, C++, Python, Java), web development course, and computer architecture course.
- Guided and assisted students in understanding theories, programming, debugging, and problem solving.

BlackBerry - Open Source Developer Intern ***Sep 2021-Dec 2021/Mississauga, ON Canada***

- Made sure the company was compliant with open source licences. Enabled analysts to do compliance scans by developing tools, scripts, and expanding capability of the existing tools mainly with Python and PostgreSQL.
- Optimized source code to reduce the execution time from approximately 10 hours to a few hours by using dynamic programming and multithreading.
- Designed and implemented database schema for analysts to verify their results. Also automated their tasks by writing a script to fill out information from the database, which reduced the amount of files analysts have to look at from several thousands to a few dozens.

Helm Operations - Full Stack Software Developer Intern ***Jan 2020-Aug 2020/Victoria, BC Canada***

- Implemented new product features that increased productivity of members of work boat companies and fixed bugs in the production code. Used JavaScript, Knockout.js, HTML/CSS.
- Created APIs and API tests by using .NET with SQL Server database and JavaScript.
- Created end-to-end tests for new features and APIs using Puppeteer which helped reduce QAs' workload.