Hung Nguyen

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EDUCATION

UNIVERSITY OF BRITISH COLUMBIA
BASc in Computer Engineering
June 2022 | Vancouver, BC
Curriculum: electrical engineering and computer science

COURSEWORK

Object-oriented design
Graphs and concurrency
Machine and assembly language
Searching and sorting algorithms
Basic data structures
Web development, front and backend
Operation of microcomputers

SKILLS

PROGRAMMING
Proficient with:
Java • C • C++ • Python
CSS • HTML • JavaScript • Assembly
Familiar:
Linux • GitHub • Latex • Bitbucket

SOFT SKILLS

Bilingual Communicator
English • Vietnamese • Chinese
Public speaker

LINKS

Github:// **hunglnl01**
LinkedIn:// **Hung Nguyen**
Email:// **hunglnl01@gmail.com**
YouTube:// **Hung Nguyen**

TECHNICAL PROJECTS

WIKIPEDIA AND GRAPH DATABASES | github
December 2019

- Worked in Java to build a server-based application for interacting with Wikipedia and handling requests from multiple users simultaneously.
- Implemented request handlers that deal with requests like searching, getting links and getting trending results from Wikipedia through utilizing an API called Jwiki.
- Created a cache that stores information retrieved from Wikipedia for performance enhancement.
- Created a multithreaded server that can handle many users' requests at the same time in the form of J-SON formatted strings.

DANCING ROBOT | TEAM PROJECT | youtube
February 2020

- Worked on the CPEN291 team to design and develop a dancing robot, capable of switching between 6 dance moves in Python. Additionally, it can display images on an LCD screen, play music through a Piezzo buzzer, and display RGB lights.
- Created and tested dance moves through controlling 4 servo motors.
- Created and tested RGB lights display.

LINE TRACKING ROBOT | TEAM PROJECT | youtube
March 2020

- Worked on the CPEN291 team to build an autonomous robotic vehicle and a web app remote control for the robot in Python and HTML. Capable of IR line tracking, dynamic room and route mapping, object avoidance, and coloured object detection.
- Created color detection through utilizing open CV library on Python. Controlled the robot to move accordingly to the traffic lights.
- Helped creating object avoidance algorithm on the robot through using 3 sonar sensors.

IMAGE FILLING ALGORITHM | github
February 2020

- Worked in C++ to implement different image filling algorithms, that can produce animations in form of GIF images.
- Implemented stack and queue classes through the use of vectors in C++. These two classes are used for performing breadth-first-search (BFS) and depth-first-search (DFS) algorithms in the pixel filling process.
- Created three different fill patterns, which are border edge filling, fade filling, and solid filling.
- Implemented the GIF file animation generator for the three filling algorithms.

GRIDLISTT | github
January 2020

- Worked in C++ to develop and use a doubly-linked list to manipulate blocks of pixels from an image.
- Created the block and grid list classes, which work like nodes and a doubly-linked list.
- Used the block and grid list classes to manipulate the image to produce different image patterns such as sandwiching an image into another and creating a checkerboard pattern.