DUC THANH NGUYEN

Software Engineer • Developer

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EXPERIENCE

Web Developer

Carbon8 (Vietnam Office)

May 2018 - Aug. 2018

♥ Nha Trang, Vietnam

- Developed three commercial websites with user authentication, diverse animations and shopping cart features with HTML5, CSS3, JavaScript, JQuery, Bootstrap, Wordpress, Webpack, Gulp, PHP and many more libraries and tools
- Learned responsive web design and modular web design.
- Worked closely and effectively with other developers through Redmine and Git.
- Underwent strict QA processes.
- Wrote animations with Fullpage, MagicScroll, SlickSlider and JQuery.

Team Leader at Hack The North 2018

Facelink

September 2018

- Developed a facial recognition web app that securely links facial signatures to resumes, allowing students to submit resumes at job fairs by scanning their faces at employers' booths.
- Implemented user authentication and user database using **Firebase**; Implemented facial recognition using **Kairos**.
- Implemented UI using HTML5, CSS3, Bootstrap, JQuery and JavaScript.

Member Developer

Project Lynn3D

🛗 July 2018 - Nov. 2018

♥ Ho Chi Minh, Vietnam

- Developed a Python demo API to convert geometric and texture data to .gltf/.glb as specified by Khronos Group's specifications with the application of byte padding, binary container and Data URI.
- Implemented a demo **Android** application with **OpenCL** and **C++** modules to parallel compute array sums using the power of both the CPU and the GPU.
- Implemented a demo Android application that uses OpenCV to apply filters, like Gaussian blur and Linear Interpolation, to real-time camera feed.

Side Project

Basic Shop API

Jan 2019

- Implemented a Shop API using Ruby on Rails and GraphQL with ActiveRecord relationships between User, Cart, Product and Cart Items.
- Wrote unit tests to test each connection of the API endpoint.

EDUCATION

B.S. in Computer Science

University of Waterloo

Sept. 2017 - Present

Courses:

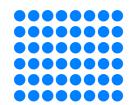
- CS 241E: Foundations of Sequential Programs (Advanced)
- CS 246E: Object-oriented Programming in C++ (Advanced)
- CS 240E: Data Structure and Data Management (Advanced)

PROFESSIONAL SKILLS

C/C++
OOP
Python
JavaScript
Git
Ruby on Rails
GraphQL
Frontend(HTML5/CSS3)
SQL
NoSQL

PERSONAL SKILLS

Problem-solving Teamwork Self-motivation Eagerness to Learn Effort Patience



Research Intern

A*STAR Institute of High Performance Computing

H Feb. 2017 - July 2017

- Implemented a cross-platform GUI for a MATLAB mode solver script using Python and GTK3 to improve the accessibility for users who do not know
- Implemented multi-threading to speed up the heavy computations by the mode solver script.
- Modelled semiconductor waveguides in Silvaco TCAD and Genius TCAD to compare the difference in performance in different electric fields simulated by the two softwares.
- Packaged, built and wrote makefiles for various Linux open-source programs.

Side Project

UWCourse

Ongoing

- Developing a web app written with Python, Flask, MongoDB and Docker to help UW students plan their courses.
- Using UW's Open Data API to access data about courses and instructors.

CS 246E Group Project

Baby Vim

Mov. 2018 - Dev. 2018

- Built a baby version of Vim using C++, ncurses and good OOP practices, with all the essential commands like the movement commands, the yank and copy commands and the basic colon and slash commands.
- Implemented the complex but efficient Rope data structure to handle text, and implemented a finite state machine to support more complex Vim commands.

C'I D ' I

Side Project

TicTacToe

 Built a cross-platform GUI implementation of TicTacToe using Python and the awesome library Kivy.

Side Project

Kijiji Scraper

April 2018

- Built a Python web scraper that uses XPath to extract data, like prices and capacity, from housing listings in Waterloo and saves the data to a local MySQL server.
- Wrote injection-safe transactional SQL queries using Python and MySQLdb; Implemented a pool of MySQL connections instead of only one connection at a time.