

HOANGUYEN

SOFTWARE ENGINEER

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Summary

A dedicated Software Engineer who has a strong background in Computer Science and Agile software development, as well as hands-on coding experience in different areas, including Mobile apps, Virtual reality, Game and Computer vision. Strong in learning, solving tough technical problems, and collaborating with team members to deliver the products in a fast-paced environment. Passionate about discovering and bringing innovation and new technologies into the products.

Skills

- Languages: *Swift, Java, C#, C, C++, HTML, CSS, JavaScript, JQuery, MySQL, PHP*
- Tools: *XCode, Android Studio, IntelliJ, Visual Studio, GitHub, Unity(2D/3D)*
- Others: *Agile/Scrum Methodologies, Team Builder, Responsive UX / UI Design.*

Education

Master of Digital Media - Centre for Digital Media, Vancouver, BC.

Sep 2016 - present

B.S., Information and Communication Technology. Vietnam-France University. GPA: 3.65/4

Dec 2013 – Aug 2016

Courses included: *Algorithms & Data Structures, Object-oriented Programming, Software Engineering, Databases, Machine Learning, Discrete Mathematics, Mobile Apps Development.*

Experience

LEAD PROGRAMMER - Public VR Theatre experience

Jan 2017 - Apr 2017

- Managed the source control (git). Created modules for other programmers to work with. Developed and executed test plans and test cases.
- Reviewed and optimized code performance. Increased the frame rate from 40 to 80 fps by using cache, loop optimization, asynchronous threads, and graphic optimization.
- Developed the VR object-interaction feature by embedding VR trackers, Leap Motion and Arduino into the product.
- Implemented some nausea-reducing techniques in VR. Reduced the number of people feeling nauseous by 70%.
- Closely collaborated with other team members to prototype in short development cycles using Agile methodologies.
- Made a presentation at CVR 2017 - Canada's biggest VR and AR Conference.

IOS (SWIFT) DEVELOPER - Balance: Social healthcare mobile app

Sep 2016 - Jan 2017

- Worked closely with producer and designers in an Agile team to rapidly create and test 3 prototypes in only 4 weeks.
- Built the app's architecture, including class diagrams and information architecture diagrams. Used Swift with MVC Pattern and unit tests to develop the final product.

IMAGE PROCESSING ENGINEER - 48-hour Design Jam

Sep 2016

- Quickly learned OpenFramework (C++) toolkit for Kinect to develop a colour and shape-based object tracking system in only 30 hours. The systems ran at 30 fps and tracked only certain objects under good light condition.
- Built an Interactive Wall by integrating the system into Unity3D (C#).

RESEARCH ASSISTANT, INTERN - Vietnam Academy of Science and Technology

Apr 2016 - Aug 2016

- Worked closely with 2 other IT students under advisement of Dr. Thang Tat Vu to research on Hidden Markov Model (HMM) and its applications in speech synthesis.
- Trained voice data and created a HMM-based Vietnamese text-to-speech system using MaryTTS framework.

LEAD / MOBILE DEVELOPER - Group Project: Automatic key-detection mobile app

Oct 2015 - Feb 2016

- Managed project schedule to meet deadlines. Created modules for other programmers to work with.
- Researched and implemented a Cepstral-based human voice pitch detection algorithm that reached 95% accuracy under quiet condition.
- Applied the algorithms to create an Android app that automatically detected the musical key at 63% accuracy.

WEB DEVELOPER - Group Project: Internship Management Website

Sep 2015 - Dec 2015

- Developed a fully functional website using PHP CodeIgniter framework and MySQL Database.