Vy The Hong
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Education

2012-2015 UNIVERSITY OF NEW SOUTH WALES
Bachelor of Science.
Major in Computer Science.

Experience

Software Development Engineer at *Microsoft Vancouver*

Mar 2016 - Present

Team: Exchange Flighting and Experimentation.

- Designed and implemented KillSwitch system and incorporated it into Exchange Online flighting infrastructure. This system helps reduce escalations' TTR (Time to Resolution) by ~30 minutes by allowing developers to turn off guarded code paths quickly.
- Maintained a variant configuration library in C# that is cored to many flighting and experimentation scenarios in Exchange Online.
- Centralized flighting and experimentation reports for feature owners by implementing a web portal utilizing AngularJS, ASP.NET, and Remote Powershell.
- Improved developer experience by adding TypeScript support to the existing build pipeline (MSBuild and internal deployment process).
- Experienced with software development best practices in Test Driven Development (TDD), Object-oriented Programming (OOP), code review, build and deployment automation.

Tutor for Algorithms and Programming Techniques at *University of New South Wales*

Feb 2015 - Jun 2015 (5 months)

- Evaluated and provided feedback for students' assignments and mid-semester exam papers.

Software Development Engineer Intern at *Microsoft Redmond*

Dec 2014 - Feb 2015 (3 months)

Team: Exchange servers' performance and scalability.

- Developed a data visualization portal for Exchange servers' performance metrics.
- Improved the payload speed by 20% by analyzing runtime performance and tuning the problematic code paths (especially SQL procedures).
- Experienced with fullstack web technology: MS-SQL, ASP.NET, jQuery and jsCharts.

Taste of Research Scholarship at *NICTA (National Information and Communications Technology Australia)*

Dec 2013 - Feb 2014 (3 months)

Research theme: Autonomous robot for search and rescue.

- Given a PointCloud from a depth camera, develop an algorithm for stairsteps detection and output their approximate heights and locations.
- This is part of a larger project to enable autonomous rescue missions in indoor environments.
- Technologies: Robotic Operating System (ROS), Point Cloud Library (PCL).

Projects

- **SOSUB.org - A learning hub for Vietnamese** (Mar 2016 - Present)
  - Developed a web API with Django web framework and MySQL.
  - System administrator for a Ubuntu server.
  - Working on leveraging Docker and other CI (Continuous Integration) and CD (Continuous Deployment) services to improve developer experience.
- **Simple Operating System on seL4** (Aug 2014 - Nov 2014)
  - Implemented a Simple Operating System (SOS) on top of seL4 (Secure Embedded L4) microkernel.
  - Implemented SOS components: timer driver, memory manager (with paging capability), syscall interface, filesystem, process management, and ELF file loading.
  - This project is part of Advanced Operating System course at UNSW. Detail specs can be found at https://www.cse.unsw.edu.au/~cs9242/17/project/index.shtml .
- **OS161 syscalls and virtual memory management** (Mar 2014 - Jun 2014)
  - Provided code: OS161, an incomplete educational operating system.
  - Implemented file system syscalls and virtual memory management mechanisms.