

EDUCATION

Nanyang Technological University

Master of Science

Aug 2015-May 2016

- Digital Media Technology
- GPA: 4.75/5.00

Bachelor of Engineering

Aug 2011-May 2015

- Information Engineering & Media

PROFESSIONAL EXPERIENCE

Panasonic R&D Center Singapore Core Technology Group (Part-Time)

Aug 2015-Nov 2015

Project 1: Smart TV Application (Flight Information at Changi Airport)

Built a TV application that allows users to track the arrival/departure flight information based on different filtering categories (used Linux-Apache-MySQL-PHP software stack model).

- Made changes to the application interface and functions to meet requirements from the client and the design team.
- Modified the existing algorithm for flight information retrieval to be less time-consuming and added the automatic update function (Crontab job scheduler) to store data received in database.
- Verified and fixed 25 existing bugs reported by the QA team, carried out self testing on the television and adjusted the interface accordingly.

Project 2: Factory Solution

Developed a system to detect and track operators' actions on the production line and to analyse the time interval between each action (Microsoft Kinect, C++ together with OpenCV libraries).

- Planned the procedure for factory data collection, collected 40 minutes of videos of 5-6 production lines from 2 different factories.
- Marked more than 7000 frames and 15 operators for their ground truth result and developed an algorithm to display results on images and to do matching with the detected result.
- Proposed 3 algorithms for detection, developed each of the algorithm into codes and analysed the advantages/disadvantages by computing the accuracy rates for each method.
- Verified and categorised failed cases during detection and modified the algorithm to improve the robustness of the system.
- Improved detection accuracy of 2 test datasets from 81.25% and 77.91% to 100% and 90.28%.

Autodesk Asia Pte Ltd

Jan 2014-Jul 2014

Software Quality Assurance Intern (Industrial Attachment)

- Worked with a team of 20 locally on quality assurance and cooperated tightly with colleagues from US and China.
- Participated in the manual and automatic testing on the latest 2 official editions of Autodesk products and contributed to the lifecycle of software product development.
- Regular build upgrade, backup and replication of publisher-subscribers on Autodesk Data Management Server.
- Main tasks including Install Automation, Server Upgrading, automation test cases maintenance, daily smoke tests, logging and reviewing defects.

SKILLS

Technical Skills

- **Programming Languages:** Java, C++, C.
- **Web Programming:** Linux-Apache-MySQL-PHP, Django, HTML 5, CSS, JavaScript, jQuery, Bootstrap.
- **IDEs and Libraries:** Eclipse, NetBeans, Microsoft Visual Studio, Pycharm, OpenCV, OpenGL, glui, glut.

Design Skills

- **3D Modeling and Game Engines:** Autodesk Inventor, Autodesk Maya, Autodesk 3Ds Max, Unity C#.
- **Movie and Graphics Editors:** Final Cut Pro, Camtasia, iMovie, Photoshop, Sketchbook.

Other Skills

- Fluent in both written and spoken English and Chinese. Basic knowledge of Spanish and Japanese.
- Teamwork, communication, event planning and problem-solving skills.

ACADEMIC PROJECTS

Dissertation: Personalised Java Programming Learning System

Aug 2015-Apr 2016

- Developed an interactive online program learning system that supports Java learning, practicing and testing.
- Enhanced user learning experience by providing functions such as interactive online compiler, automatic difficulty update, past performance analysis and personalised recommendations.
- Enabled 134 users to explore the system and received 4.5/5 ratings according to the online survey conducted.
- Developed based on Django web framework.

Final Year Project: An Online Peer-Assessment System

Aug 2014-Apr 2015

- Built an online peer-assessment system that frees teachers from viewing/grading assignments, calculating rankings and assigning tasks.
- Developed based on Linux-Apache-MySQL-PHP server.

Design and Innovation Project: Bike it!

Aug 2013-Dec 2013

- Designed an Android application that works as a travel assistant.
- Enabled both text and volume resources of nearby facilities.
- Developed in Java and Google APIs were used for map information.

VOLUNTEER & ACTIVITIES

Fast Forward: NTU Board Games Society

Sep 2012-Sep 2013

Game Programmer, Gaming Lallapalooza 2013

- Participated in organising the annual nationwide board game event-Lallapalooza 2013, with more than 150 competitors.
- Planned and adapted rules for the event and worked as a judge during the competition.

NTU BP Mentoring

Sep 2011-May 2012

Mentor

- Taught O-Level Mathematics and physics at 2 secondary schools and 4 students in total.