aspiring computer engineer

online

nat@lie.sg fb://natalie.tsw nattsw@github natalietsw@linkedin

languages

english (proficient) mandarin

programming

♥ C# C

C++ Objective-C Java (Android) VHDL

> JavaScript Assembly

technical skills

HTML & CSS LATEX Git

AutoCAD Database Administration

about

Tay Shu Wen, Natalie

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experience

12 2012 - now ST Electronics (Info-Comm)

Defence Electronics Division

- Built a web server in C on an Atmel AVR UC3 microcontroller
- · Handled high speed graphics rendering
- · Project requirements analysis and solution sourcing
- Built a high level site scraper

12 2011 ST Electronics (Info-Comm)

Defence Electronics Division
Continued work on R&D project with Defence Electronics Division

06 - 08 2011 ST Electronics (Info-Comm)

Defence Electronics Division

Worked on R&D project which required:

- Extensive knowledge on Human-Computer Interaction
- Optimisation of computer memory use
- Radio communications protocols
- Presentation skills

04 - 08 2009 **ST Electronics (Info-Comm)**

Defence Electronics Division

Was introduced and recommended to work on project:

- · Search and sort of large data
- Categorisation of information
- Interfacing with several communications equipment

education

2009 - 2012 Bachelors of Engineering (BEng)

National University of Singapore

Software Engineer

Assoc Engineer

Assoc Engineer

Software Engineer

Major in Computer Engineering

2006 - 2009 Diploma in Electronics and Computer Engineering

Ngee Ann Polytechnic, Singapore

Diploma with Merit

2005 GCE 'O' Levels

Clementi Town Secondary School, Singapore

Notable Projects

2012 Mobile Ground Station for Unmanned Aerial Vehicles

A Ground Control Station built on the iPad (iOS 6) interfacing for a custom UAV. The UAV took part in the DARPA UAVForge competition. Communication was via Wi-Fi and 3G.

2012 **Social Care Assistance Network**

Social Network for Android (V15, Ice Cream Sandwich) devices, developed for aiding in quick response to non-emergency situations. Involved the usage of an indoor localization server capable of pinpointing indoor location via power signal of network device.

2012 **Networked Bomberman**

A multiplayer clone of the classic Bomberman for the browser and Blackberry Playbook made using CraftyJS (JS game engine) and NodeJS. Drew graphics and implemented game logic.

2010 **i8051 Sequencer**

Designed the 8051 sequencer which contains the algorithm for implementing assembly instructions of the Intel 8051 in the Industry Standard Architecture. Used the Spartan 3A Evaluation Kit (FPGA) to test the sequencer logic in VHDL.

2009 **eSuite**

A web-based control system in C# to remotely control and monitor the activities of an indoor environment. Sensor boards, logic circuits, and motor drivers were built from scratch. The suite features audio-video transmission, motion detection, temperature sensors, automatic triggers and alarms via SMS or email.

Groups

2014 R User Group

Attendee

Avid interest in R Language due to its wide usage by statisticians, for data mining and analysis.

interests

uavs, machine learning, information visualisation, arduinos, inline skating, reading, gaming