natalie**tay**
computer engineer

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

languages
english (proficient)
mandarin

programming
♥ C#
♥ Ruby
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

07 2015 - now · **Neo Innovation** — Software Engineer
A worldwide fitness concierge: matches clients to trainers, so physical training schedule will not be compromised by travel habits.
- Maintained the service
- Feature expansion
- Front-end design implementation
- Deployment

12 2012 - 06 2015 · **ST Electronics (Info-Comm)** — Software Engineer
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)** — Assoc Engineer
Defence Electronics Division
Continued work on R&D project with Defence Electronics Division

06 - 08 2011 · **ST Electronics (Info-Comm)** — Assoc Engineer
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)** — Software Engineer
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
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.

Interests

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