

natalietay

computer engineer

online

✉ nat@lie.sg
nattsw@github
natalietsw@linkedin

languages

english (proficient)
mandarin

programming

♥ Java (Android)
C#
♥ Ruby
C
C++
Objective-C
JavaScript

technical skills

HTML & CSS
L^AT_EX
Git
*nix

about

♀ Tay Shu Wen, Natalie
✉ 434 Clementi Ave 3, Singapore 120434

♂ DOB: 16/11/1989
☎ (+65) 86123211

experience

02 2016 - now

Pivotal Labs

Software Engineer

Worked on several projects using TDD and Agile methodologies:

- An Android app for a large carmaker, which targeted API 19 - 23. Implemented fuel, analytics and servicing features, and enablement of client engineers through pairing. Liaised with global team to ensure that the quality and alignment of the app is maintained across regions.
- An online Liquor Store in Ruby on Rails using an open source e-commerce solution. It involved integration with commercial warehouse for delivery and store upkeep.

07 2015 - 02 2016

Neo Innovation

Software Engineer

Worked on several projects using TDD and Agile methodologies:

- A worldwide fitness concierge: matches trainees to vetted trainers in Ruby on Rails. The app was live and involved service maintenance, feature expansion, and migration.
- An Android concierge application for a large mobile company, which targeted API 18 - 23. It was a system application on a flagship phone, which had to work with a 10MB size limit and other unconventional constraints. The project involved a handover to the overseas team.

12 2012 - 06 2015

ST Electronics (Info-Comm)

Software Engineer

Defence Electronics Division

- Built a RF matrix using an Atmel AVR UC3 microcontroller
- Built a front-end library in C to handle high throughput graphics rendering
- Project requirement analysis and solutioning
- Liaise with vendors and clients to develop solutions and manage project
- Delivered a solution which involved interfacing with several pieces of hardware via serial and wireless interfaces

06 - 12 2011

ST Electronics (Info-Comm)

Assoc Engineer

Defence Electronics Division

Worked on R&D project which required:

- Extensive knowledge on Human-Computer Interaction for RF tools
- Optimisation of computer memory use
- Radio communications protocols
- Communicating implementation details and complications to high-level stakeholders

04 - 08 2009

ST Electronics (Info-Comm)

Software Engineer

Defence Electronics Division

Was recommended and contracted to work on classified project:

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

education

2009 - 2012	Bachelors of Engineering (BEng) Major in Computer Engineering	National University of Singapore
2006 - 2009	Diploma in Electronics and Computer Engineering Diploma with Merit	Ngee Ann Polytechnic
2005	GCE 'O' Levels	Clementi Town Secondary School

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

swimming, information visualisation, inline skating, reading, gaming