Sirakorn Lamyai

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https://github.com/srakrn (https://github.com/srakrnxKU for school works)

Education

Kasetsart University Bangkok, Thailand
Expecting Bachelor Degree in Computer Engineering *GPA: 3.14*

The Demonstration School of Nakhon Pathom Rajabhat University Nakhon Pathom
High School, Science-Math Programme *GPA: 3.23*

Works

Vidyasirimedhi Institute of Science and Technology (VISTEC) Rayong, Thailand
Former Research Assistant Intern May 2018 - July 2018

- Implemented an online system for a Steady State Visual Evoked Potential (SSVEP) based Brain-Controlled Interface (BCI) with a statistic-based machine learning algorithm to classify brainwave.
- Provided a machine learning crash course for laboratory members without experiencecs.
- Miscellaneous works, including in 3D printing the model for the Molecular Science laboratory.

Kasetsart University's Computers and Programming Course Bangkok, Thailand
Teaching Assistant Summer 2017

- Prepared programming problems for students based on the course syllabus and analysis of the students' capabilities
- Created an automatic grading and scoring system
- Prepared supplementary materials (for example, helpdesk sessions)

Skills

Programming Language	Python (intermediate), HTML+CSS (fluent), JavaScript (fundamentals), PHP (fundamentals)
Other Technical Skills	UNIX/Linux
Languages	Thai (native), English (fluent)

Achievements

Test of Practical Competency in ICT Highest Thailand Scorer 2018

Asia Pacific Conference on Giftedness 2012 Participated, Robotics Design 2012

Twelfth National Linux Competition Winner, Client Category 2012

Eleventh National Linux Competition Participated, Client Category 2011

Selected Works and Projects

SSVEP BCI Speller *Python (2018)* `http://bit.ly/vistec-ssvep` (Introduction video)
SSVEP BCI Speller is a Brain-Controlled Interface for users to control the desired device (for example, wheelchair) with the brainwave in visual cortex part of the brain, triggered by eye stimulation. The system implemented a Canonical Correlation Analysis (Lin et al., 2006) on the brain signal, and decides on which target the user is focusing on the screen. The eye stimulator syncs up with the brainwave reader (OpenBCI) and external devices through socket.

Is BTS Down? *Python, HTML, jQuery (2017)* `https://srakrn.me/utilities/bts/`
Is BTS Down? process tweets from the Twitter account of BTS SkyTrain – one of the most unreliable metro service provider – and determines whether the train service is disrupted or not. This project is my very first step into Natural Language Processing.

PM2.5@CPE *Python (2019)* `https://aqi.srakrn.me/`
PM2.5@CPE is a real-time PM2.5 pollution level measurement from the ESP32-based sensor installed at the Department of Computer Engineering, Kasetsart University. The website is written with Flask on Python, and provides open data API for further use.

srakrnARSE *NodeJS, Socket.io (2015)* `https://arse.herokuapp.com/`
srakrnARSE stands for "**S**i**rak**o**rn**'s **A**udience **R**espose **S**ystem, **E**lectronically-controlled. It intends to be used as a low cost clicker for classroom participation, in which the system is firstly designed for the school's quiz competition. ARSE is based on Node.js and socket.io.

KUtoICS *PHP with Laravel Framework (2015)* `https://kutoics.herokuapp.com/`
KUtoICS is a small utility which helps generating a calendar file (.ics) from Kasetsart University class timetable, of which is available from the online student system. KUtoICS was developed on Laravel, and deployed to Heroku.

1DG Grader *Python (2016)* (proprietary)
1DG (read as *1 Degree*, stands for *1-Day Grader*, the time used to develop its first version) is a terminal-based grader which I developed (as a part of my teaching assistant work) for Kasetsart University's *Computers and Programming (01204111)* course.
The grader features code isolation (sandboxing), time control, and comes with lots of customised functions to suits the class needs (for example, presentation error stictness and non-allowed keywords in the code)

Selected School Works

JetFree *Node.js (2018)* `https://github.com/AyumiizZ/SoftengProject`
JetFree, with the slogan of *Find Freelance at the Speed of Jet*, is a freelance-matching website written for the *Software Engineering* class. The website is written on Node.js, with standard procedures of software development applied (for example, MVC cocept and ORM-based database). The website was deployed to DigitalOcean with automated CI/CD using Jenkins.

Tryko *Python (2017)* `https://github.com/srakrnxKU/01204223-final/`
Tryko is a Taiko drum game controller for *Osu!* Taiko music game. The core behind Tryko is a machine learning trained model that classifies the values read from the vibration sensors into keypad pressing decision. Parameters tuning results into 94.6 percent accuracy of the button classification.

Huag/DinoJump! *Java (2017)* `https://github.com/srakrnxKU/01204215-huag/`
Huag, a backronym "Highly Universally Addictive Game", is an infinite-running game cloned from Google Chrome's famous "offline dinosaur" game. The game is written in Java, using libGDX for the animation of the game. The game features 8-bit style soundtracks rearranged from BNK48's *Oogoe Diamond* and *365 Nichi no Kamihikouki*.

Python Notebooks *Python (2017)* `https://github.com/srakrnxKU/01204111-python-notebooks`
Some of Python concepts (for example, `None` and `NoneType`) are hard to get familiar with. These notebooks acts as a "guideline" to programming concepts for fundamental Python syntax. One lost notebook visualise the concept of recursion runtime.