

# Sirakorn Lamyai · ศีระกร ลำไย

[in linkedin.com/in/srakrn](https://www.linkedin.com/in/srakrn) · [srakrn.me](https://srakrn.me)  
[github.com/srakrn](https://github.com/srakrn) ([github.com/srakrn/KU](https://github.com/srakrn/KU) for school works)

## Education

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- Kasetsart University (Bangkhen Campus)** Class of 2020  
Bachelor Degree in Computer Engineering · GPA: 3.36 (Second-class honour)
- The Demonstration School of Nakhon Pathom Rajabhat University** Class of 2016  
High School, Science-Math Programme · GPA: 3.23

## Work Experiences

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- Adastra Thailand** Bangkok, Thailand  
*Data Engineer* September 2020 - Current
- Created data models based on Data Warehouse for Big Data Analysis.
  - Implemented reports to obtain business insights with Power BI.
  - Participated and delivered campus on-tour programmes to attract prospective team members.
  - Enrolled in internal training to satisfy clients' requirements.
- PTT GC dEXSpark Data Science Training Programme** Rayong, Thailand  
*Teaching Assistant (Outsourced)* Q3-Q4 2019
- Assisted in the teaching of Data Science course for PTT Global Chemical company limited.
  - Prepared materials, including supplementary talks, and Jupyter notebooks used in the classes.
- Vidyasirimedhi Institute of Science and Technology (VISTEC)** Rayong, Thailand  
*Research Assistant Intern* May 2019 - July 2019
- Assisted in the research regarding the continuous Steady State Visual Evoked Potential (SSVEP) Brain-Controlled Interfaces (BCIs).
  - Advising high school researcher team in the research of drowsiness detection with computer usage behaviour, with the ultimate goal to study measures of drowsiness in human behaviours.
- Vidyasirimedhi Institute of Science and Technology (VISTEC)** Rayong, Thailand  
*Research Assistant Intern* May 2018 - July 2018
- Implemented an online system for a Steady State Visual Evoked Potential (SSVEP) Brain-Controlled Interface (BCI) with a statistic-based algorithm to classify brainwave.
  - Assisted the laboratory principle investigator in preparing materials for a conference session.
  - Provided a machine learning crash course for laboratory members without experiences.
- Department of Computer Engineering, Kasetsart University** Bangkok, Thailand  
*Teaching Assistant* During undergraduate course
- Teaching assistants in *Computers and Programming* (Fall 2017), *Data Structures and Algorithms II* (Winter 2018), *Social Skills and Career Development* (Fall 2019), and *Data Structures and Algorithms II* (Winter 2019)

## Skills

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Note: Asterisk indicates the pass of LinkedIn assessment on the given skill.

Programming languages	Bash*, C*, JavaScript*, PHP*, Python*
Markup and query languages	HTML*, JSON*, LaTeX, SQL
Tools and Services	AWS*, Azure, Git, Power BI*
Technical Skills	Data Science, Data Engineering, Machine Learning*, Project Management, UNIX/Linux
Languages	Thai (native), English (CEFR C1-C2)

## Research Papers

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- Autthasan, P., Du, X., Arnin, J., **Lamyai, S.**, Perera, M., Itthipuripat, S., Yagi, T., Manoonpong, P. and Wilaiprasitporn, T. (2019). *A Single-Channel Consumer-Grade EEG Device for Brain-Computer Interface: Enhancing Detection of SSVEPs and Its Amplitude Modulations*. IEEE Sensors (Accepted). doi:10.1109/JSEN.2019.2958210.
- Natnithikarat, S., **Lamyai, S.**, Leelaarporn, P., Kunaseth, N., Autthasan, P., Wisutthisen, T. and Wilaiprasitporn, T. (2019). *Drowsiness Detection for Office-based Workload with Mouse and Keyboard Data*. The 12th Biomedical Engineering International Conference (BMEiCON2019).

## Senior Project

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### Cluster Method to Strengthen Adversarial Defence on Deep Learning Models

Advisors: Jittat Fakcharoenphol, Ph.D, Thanawin Rakthanmanon, Ph.D.

Note: The source code of this project, which acts also as an adversarial attacking and training toolbox, is available at <https://github.com/srakrnxKU/adversarial-project>.

## Certificates

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- **Microsoft Azure Fundamentals (AZ-900)**, obtained on December 2020.  
<https://www.credly.com/badges/3a4dc4c9-61ca-435e-ae0f-4bfb44eba95>
- **Microsoft Azure Data Fundamentals (DP-900)**, obtained on March 2021.  
<https://www.credly.com/badges/dfb55ae5-512d-4c55-af9f-031e304b2b9c/>

## Selected Works and Projects

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### SSVEP BCI Speller *Python* (2018)

[srakrn.me/to/vistec-ssvep](https://srakrn.me/to/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)

[srakrn.me/utilities/bts](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.

### 1DG Grader *Python* (2016)

(proprietary)

1DG is a terminal-based grader which I developed 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.