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Lab: Data Science and Engineering Laboratory (D-LAB)

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## D-Lab Experiences



I was given the opportunity to do an internship abroad with the duration of 6 months starting from 4<sup>th</sup> January 2018 till 30<sup>th</sup> June 2018. My internship placement was at Data Science and Engineering Laboratory in the School of Information Technology. Throughout this internship programme, we were advised to do one main project and two or more mini projects.

The title of the main project is Projection Mapping SIT. Projection mapping or also known as video mapping is a projection technology which turns any objects with any shapes into a display for video projection. For this group project, my team member and I used small boxes as our main display surface and the content of the video is regarding on SIT@KMUTT. The steps to create the projection mapping are as below:

- 1) Select the object(white surface) you wish to project on
- 2) Set up the projector at a fix position and keep the projector to mask the object

- 3) Mask the object using Adobe After Effect or Adobe Illustrator. This process is called “masking” which means using shape to map the exact shapes and positions
- 4) Upon completed the initial step, create the content using Adobe Illustrator for graphic creation, After Effects for animation and Premiere Pro for video editing. The content can be in the form of video, images or animated graphics.
- 5) Lastly, render the complete video and then project it using a projector to the object.

For potential future improvement, this project can be turned into an IOT in which one of the recommendations is using a camera to automatically detect and resize the object and another suggestion is regarding on sound detection in which user can interact with the video projection which similar to Google Home and Alexa.

As for the mini project, I did logo rebranding for the upcoming IAIT (International Conference on Advances in Information) and CSBIO (International Conference on Computational Systems-Biology and Bioinformatics) and plus creating logos for D-LAB polo shirt. All the logo designs were designed using Adobe Illustrator.

Another mini project that I was working on Deep Learning Winter School which was held for four days in KMUTT. My team member and I were given a task to set up a live video conference using 360 degree camera and shared live via Youtube. After that, we were asked to edit and produce a trailer video regarding on DLAI. For this, I used Adobe Premiere Pro and Adobe After Effect to edit the video. The overall processes are shown below:

- 1) Obtain the video
- 2) Rough edit in Adobe Premiere Pro
- 3) Select suitable scenes and arrange it the timeline
- 4) Apply colour grading, artificial camera movement and sharpen the video quality
- 5) Export the whole sequence to Adobe After Effects or render the whole sequence to mp4 format
- 6) Apply text motion and graphic motion to existed sequence or video in Adobe After Effects

Lastly, the third mini project that I was working on was on designing two watch faces for Samsung Gear S2 by using Gear Watch Designer. For graphic element, I used some of design templates that available in Gear Watch Designer and some graphic were designed using Adobe Illustrator. The processes to create Watch Face are shown below:

- 1) Setting the preference(can be found in Samsung Developer website) in Adobe Illustrator
- 2) Create the graphics/icon in Adobe Illustrator
- 3) Export the graphic to Gear Watch Designer
- 4) Configure the components and functions in Gear Watch Designer
- 5) Build and Run the Watch Face
- 6) Publish and set it at the store

Apart from doing projects, I had attended numbers of meetings and conferences which were held within KMUTT and also within the faculty. One of the conferences that I had attended was Deep Learning Winter School 2018 held in KMUTT from 1<sup>st</sup> February to 4<sup>th</sup> February which focused on Deep Learning and Artificial Intelligence.

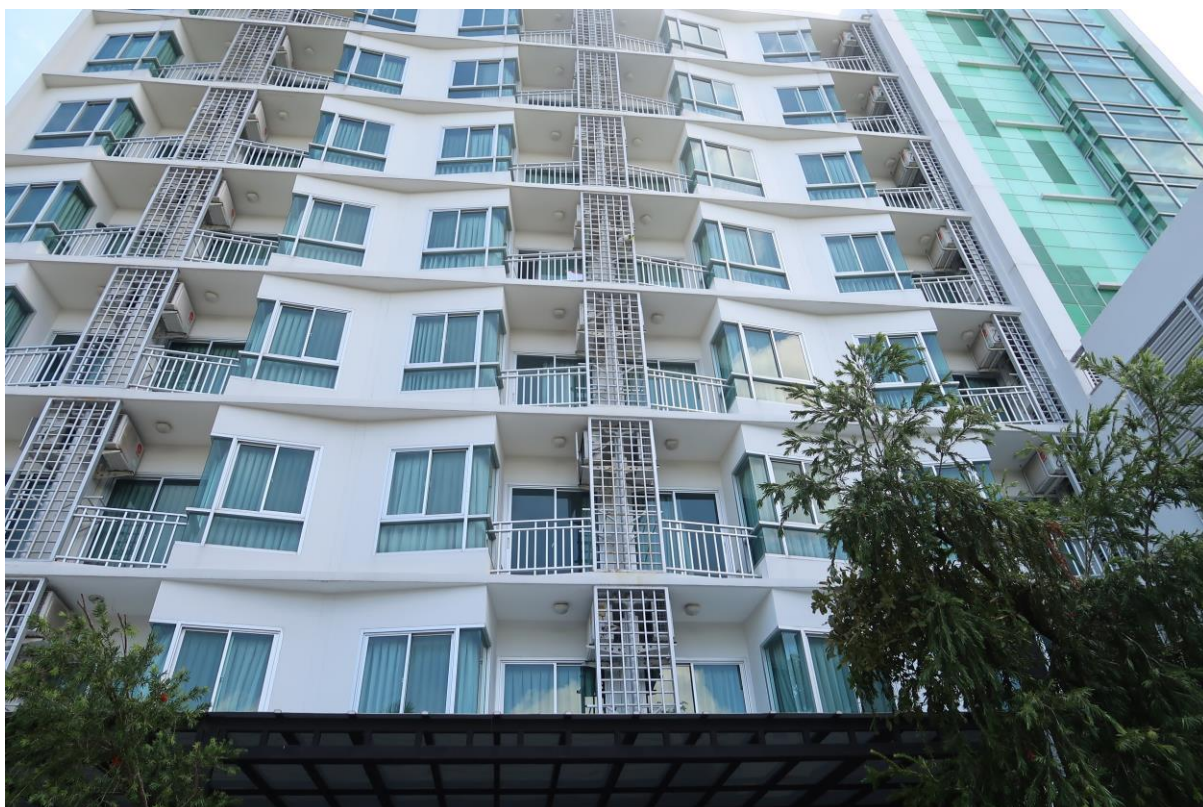


D-LAB meeting

There were also lab meetings which held once in every month in which the d-lab researchers shared their project in which they are currently working on. Most of the projects are involved in big data and text mining. There were several talks I had attended which was held within SIT and KMUTT such as Scientific Analysis writing, Human Research Ethics Training workshop, Strategic Career Planning, Communicating Your Achievements, Cyber Security and Academic to Corporate World.

## **Accommodation**

As for accommodation, I chose to stay at Cosmo Resident which located at Pracha Uthit Soi 21. Overall, the facilities were quite good and the location is quite near to the campus. On average, the average fee of the rental fee I had to pay for every month was around 9000 bath – 9500 bath. 7000 bath is the room fee while the additional fee was for electricity and water bills which the prices are usually depends on your electricity usage.







As for accommodation, I chose to stay at Cosmo Resident which located at Pracha Uthit Soi 21 and it is outside campus. Overall, the facilities were quite good and fully equipped with bed, toilet, microwave, refrigerator and cupboard however there's no kitchen plus the location is only 4-6mins away from campus if you use public transport such as bus or kapo/songthaew and around 20mins by foot to campus. On average, the average fee of the rental fee I had to pay for every month was around 9000 bath – 9500 bath. 7000 bath is the room fee while the additional fee was for electricity and water bills which the prices are usually depends on your electricity usage.

## Other experience

Throughout the six months in Thailand, I used this opportunity to go places and tried a lot of delicacies around Thailand. So far, I've visited to provinces that are outside of Bangkok such as Samut Songkhram, Samut Prakan, Ayutthaya, Krabi, Prachin Buri, Chiangmai, Prachuap Khiri Khan, Chonburi and Kanchanaburi.

I've also gained friends while I was doing internship in KMUTT. I joined the orientation program that was held in January by the International Affairs KMUTT. From there, I get to know a lot of other students both grad and undergrad students who came to KMUTT for a semester exchange and also for master program. To be honest, meeting new people did improve my communication skills and I'm happy to get to know them as we did a lot of thing together in Thailand such as traveling to places, trying new things and also hanging out together.



