

南洋理工大學返國報告書

學校簡介:

南洋理工大學是世界最年輕的大學之一，在工程類和商管類學科都可以和亞洲第一的新加坡國立大學相提並論，學校的學生來源非常國際化，除了本地生之外，有許多韓國，中國和東南亞各國在那邊接受學位教育。並且在每學期的 1000 個交換生裡面，有高達 800 名學生都是來自歐美地區。學校環境優美，不僅綠意盎然，充滿自然氣息，在校生活環境更是非常便利而且有提供學生充裕的資源和舒適空間讀書。

在南洋理工大學研修之課程學習:

此次前往南洋理工大學學習一共有選 3 門課，分別是軟體工程，電腦圖學及視覺化和人工智慧。這裡作為世界排名前列的學校，課程的難度也是不小，所以我並沒有選很多課，最終也花了大量時間準備考試，取得 A，B+，B+ 的成績。電腦圖學課程主要是研究電腦在硬體和軟體的幫助下建立電腦圖形的科學學科，是電腦科學的一個分支領域，主要關注數位合成與操作視覺的圖形內容。雖然這個詞通常被認為是指三維圖形，事實上同時包括了二維圖形以及影像處理。在課程的前半段裡面，是由俄羅斯籍教授 Alexei Sourin 教授，理解俄羅斯口音需要一定的英文能力，他教如何用數學函式表示出生活中的各種複雜圖形，不僅需要扎實的數學(線性代數)基礎而且還需要比較好的空間觀念。在後半段課程裡面，是由 He Ying 博士教授，他用線性代數方法教 3d 2d object transformation 和 Illumination。

軟體工程課程是由兩位 Doctors 教授，中規中矩，這門課非常舊，可能全球都一樣，這裡便不做評論。

人工智慧課程是由 UBC 畢業的孟加拉籍老師 Joty Shafiq 教授，老師非常投入他的教學工作，上課主動向學生詢問反饋，前半段是教 problem Search system. 後半段是由 Deputy Chair 來教，教授的方法較為傳統，不過他有說他將在新的學期中大量教授類神經網路相關課程。

國外研修之生活學習:

學校生活方便有超市，書店，大量學習空間。非常適合學習，學期中有一個 recess week，交換學生可在此期間出國旅行，我在期間前往日本，印尼和馬來西亞等國遊玩，是一個不錯的機會。

交換/研修之具體效益:

1. 練習語言能力，因老師口音各國皆有對於英文聽力的練習反而非常之大。
2. 了解跨國合作關係，與不同國家學生共同完成 project
3. 適應全英文教學環境，一學期的學習生活足夠使自己是用全英文教學環境
4. 獨立生活能力，在國外獨立生活可快速融入美國當地生活
5. 開拓視野，由於新加坡學生非常用功，印度學生尤甚，給自己更大動力讀書

感想與建議:

理工科或商管類學生非常建議來此間學校交換，提供課程豐富，是非常好的機會。該校學費極貴，用中山學費去讀那邊的課可以說是非常划算。鼓勵學弟妹來這間學校交換。



English Exchange Review

Introduction of this University:

In 1955, prior to Singapore's independence from the British, Nanyang University was established south of the current Nanyang Technological University campus, with the centre of the present Yunnan Garden as its heart. Its administration building currently houses the Chinese Heritage Centre, a national monument. With a population of 33,500 students and 10,000 faculty and staff, NTU is the second largest university in Singapore. The University is organised into eight colleges and schools, including the College of Engineering, College of Science, Nanyang Business School, Lee Kong Chian School of Medicine, and College of Humanities, Arts and Social Sciences.

Course registration:

I had registered 3 courses under school of Computer science& engineering. Every course is hold by several member of teaching faculty. It' s obvious that the toughness here is much higher than the course in NSYSU. Computer graphics, Artificial intelligence, and software engineering are what I registered. All of them are very useful and helpful to my future career.

Computer graphics are pictures and films created using computers. Usually, the term refers to computer-generated image data created with the help of specialized graphical hardware and software. It is a vast and recently developed area of computer science.

Computer science defines AI research as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals.[54] A more elaborate definition characterizes AI as “a system’ s ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation.”

Extracurricular activities:

There was a spring break, or you can say a week break called recess week during the middle of the semester. You can use this time whether to review the lectures you learned or to travel to another nearby country. Indeed, most of us, the exchange students travel to surrounding countries like Vietnam, Indonesia, Malaysia, Thailand and even Sri Lanka. However, recently, these countries in SEA are considered to be slightly dangerous.

Result of exchange program:

1. Improving English capabilities, especially in listening due to the exotic accents of professors from different countries.
2. Knew and tried international cooperation because I was in a project group which group members are from different countries
3. Got used to full English teaching environment, which will help me a lot in the future master studying life in the U.S.
4. Living independently, get fitted in to lives there very quickly
5. Broadened my horizon, not only the local students here study very hard every day, but also the international students who are from India left a astounding impression on me about there hard-working.

Review and Suggestion:

Throughout this exchange program, I have learned a lot by professors, the environment there, and also the students from different countries such as South Korea, India, Maryland and Hongkong. They are really talented people, whose steps are really worthy for me to catch up. I am really thankful to my home university, NSYSU, which offers me a very meaningful program study abroad.