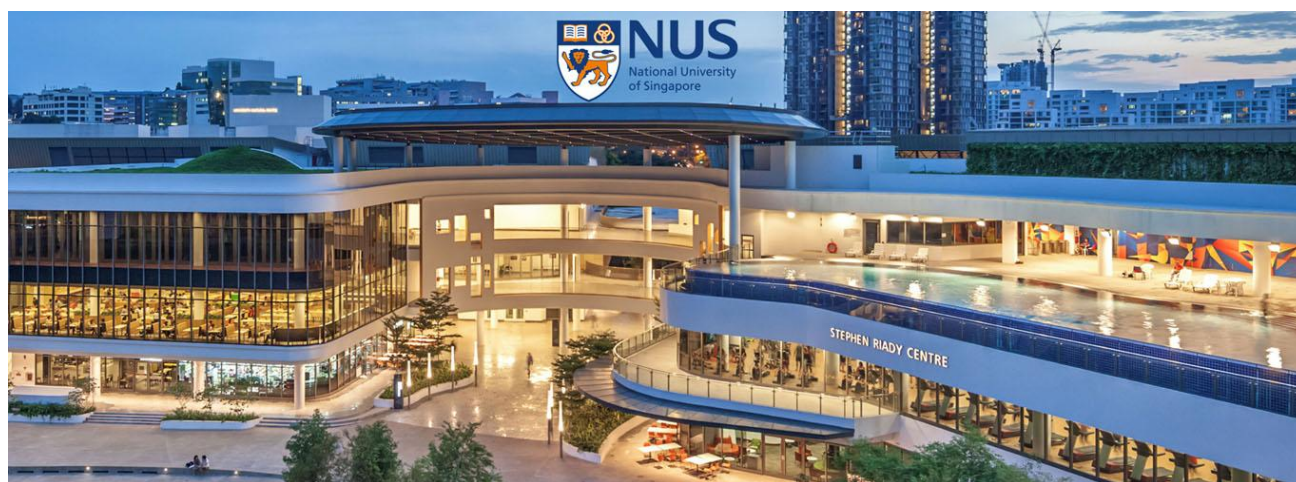


## National University of Singapore 2024 Summer Programme (On-Site)

### 新加坡国立大学 2024 年 暑期实地官方项目

#### University Overview 学校简介

Founded in 1905, the National University of Singapore (NUS) is the oldest higher education institution in Singapore. NUS has 17 colleges, faculties & schools across three campuses and overseas colleges in more than 15 cities around the world. With quality education, influential research and visionary enterprise, attracts more than 40,000 students from 100 countries and regions. In QS World Universities Rankings 2024, NUS ranked 8th in the world and 1st in the Asia-Pacific region.



新加坡国立大学 ( National University of Singapore ) 是一所亚洲首屈一指的世界级顶尖大学，成立于 1905 年，拥有超过百年的建校历史。新国立共设有 17 所学院横跨新加坡三大校区，并在全球超过 15 个城市设有海外学院。其完整的院校及专业体系，实力强大的研究机构，丰富多彩的社团，为来自 100 个国家与地区的 40,000 多名学生提供先进的教育资源及优良的校园生活体验。新加坡国立大学在工程、计算机科学、生命科学及生物医学、社会科学及自然科学等领域的研究享有世界盛名，2024 年 QS 世界排名第 8 名，亚洲排名第 1 名。

## Programme Overview 项目简介

The summer on-site programme offered by School of Continuing and Lifelong Education of National University of Singapore, led by top-tier faculty, offers a high-quality, hands-on learning experience. The course covers the most cutting-edge research content, including data science, machine learning, finance and business, biomedical biotechnology and other directions. It aims to help students cultivate their ability to think actively, and improve their comprehensive abilities in research exploration, academic innovation, and English language proficiency.

新加坡国立大学暑假实地项目，由新国立顶级师资力量提供高质量、实践性的学习旅程，课程内容涵盖当下最前沿的研究内容，包括数据科学，机器学习、计算机科学、医学、国际经济与金融等众多方向。旨在帮助同学以提升自身知识储备，培养学生主动思考和团队协作能力，并且多方位提升学生科研探索，学术创新，英文应用等综合能力。

## 2024 Summer Programme Overview 暑假项目课程概览

### Programme Dates 项目拟定日期

A 8-day Programme includes 15hrs onsite academic courses.

Tentative Duration:

July 6<sup>th</sup> to July 13<sup>th</sup>, 2024

每期项目时长 8 天，包含一门 20 课时（45min/课时），15hrs 的线下学术课程。

项目时间（拟定）：

2024 年 7 月 6 日-7 月 13 日

### Programme Highlights 项目亮点

- Explore cutting-edge research cases with professionals and experts;
- Heighten critical thinking and multitasking skills through interdisciplinary learning experiences;
- Immerse in an English-speaking environment to improve writing and oral skills;
- Enhance the ability to communicate, collaborate in groups, and present in public;
- Awarded a certificate of completion and an assessment report by National University of

Singapore.

- 与专业人士和专家一同探索前沿研究案例；
- 通过跨学科学习体验，提高批判性思维和多任务处理技能；
- 沉浸的英语交流环境，提高写作和口语技能；
- 增强沟通，团队协作和公开演讲的能力；
- 获得新加坡国立大学颁发的结业证书和评估报告。

## Programme Introduction 项目内容 (参考)

### Road to ChatGPT : Basics of AI in Language Processing

#### ChatGPT 之路：人工智能在语言处理中的基础知识

**Pre-requisites:** There are no subject-matter-specific pre-requisites to attend this programme. However, some familiarity with programming (in any language) would be helpful. Some prior exposure to calculus, linear algebra, and statistics would be helpful as well.

**预备知识:** 本课程无特定的预备知识要求。熟悉编程（任何语言）会对学习有所帮助；微积分、线性代数和统计学也会对接下来的学习有所帮助。

#### Intro of Academic Course 学术课程介绍

Natural language processing (NLP) is one of the dominant applications of AI and machine learning, commonly used for tasks that include text classification, translation, summarizing, answering questions, amongst others. NLP has gained special prominence recently with OpenAI's ChatGPT, a chatbot capable of generating human-like responses to text inputs in a conversational manner, which represents a significant leap from prior capabilities. This programme introduces participants to the basic concepts of how machine learning, and specifically deep learning models, are able to perform NLP, and the transformer architecture that drives novel language models such as ChatGPT.

自然语言处理（NLP）是人工智能和机器学习的主要应用之一，通常用于文本分类、翻译、总结、回答问题等任务。NLP 最近凭借 OpenAI 的 ChatGPT 获得了特别的关注，这是一种聊天机器人，能够以对话的方式对文本输入产生类似人类的响应，这代表着与以前的功能相比有了重大飞跃。本课程向参与的学生介绍机器学习，特别是深度学习模型如何执行 NLP 的基本概念，以及驱动新型语言模型（如 ChatGPT）的转换器架构。

**The course covers the following topics:**

- Introduction to AI and Deep Learning
- Basic Concepts of NLP
- Bag-of-words Approach to Processing Words
- Sequence Models

**本课程涵盖以下主题：**

- 人工智能与深度学习导论
- NLP 的基本概念
- 处理单词的词袋方法
- 序列模型

※ The courses are offered by the designated School of Continuing and Lifelong Education of National University of Singapore and the syllabus will be based on the final version of the school.

以上课程由新加坡国立大学继续与终身教育学院提供，课程大纲以学校最终版本为准。

**Itinerary 行程安排 ( Tentative )**

DATE	ITINERARY
Day 1	抵达新加坡，办理入住手续 Arrive in Singapore and Check in
Day 2	上午：新加坡国立大学参访 Visit NUS 下午：城市文化体验 Culture Experience
Day 3	上午：学术课程 1 Academic Lecture 1 (3hrs) 下午：南洋理工大学参访 Visit NTU
Day 4	上午：学术课程 2 Academic Lecture 2 (3hrs) 下午：新加坡国家博物馆参访 Visit National Museum of Singapore
Day 5	上午：学术课程 3 Academic Lecture 3 (3hrs) 下午：完成学术作业&自由活动 Assignments & Free Time
Day 6	上午：学术课程 4 Academic Lecture 4 (3hrs) 下午：准备结业报告 Prepare and Rehearse Final Presentation
Day 7	上午：学术课程结业汇报 Final Project Presentation (3hrs) 下午：自由活动 Free Time
Day 8	离营，返回中国 Go back to China

## Application Requirements 申请要求

### Language Proficiency 语言要求

TOEFL 79+; IELTS 6.0+; CET-4 500+; CET-6 470+

语言成绩达到托福 79 分/雅思 6.0/大学英语四级 500 分/大学英语六级 470 分

### Programme Fee 项目费用

17,800 元人民币/人/项目，每个项目人数上限 40 人。

此费用包含：

- 学术课程及材料费用
- 教室费用
- 住宿费用
- 参访费用
- 项目统一安排活动的交通费用

不包含：签证、往返机票、接送机、餐饮及其他费用。

### Proposed Faculty Information 参考师资介绍（部分）

The programmes are taught by professional teachers designated by the National University of Singapore, and teachers of previous courses are available for reference:

项目由新加坡国立大学指定的专业教师授课，往期课程教师可参考：

#### **Edmund Low**

Senior Lecturer

University Scholars Programme

National University of Singapore



Dr. Low is a senior lecturer with the University Scholars Programme (USP) at the National University of Singapore. He has more than 14 years of academic and professional experience in the use of data-driven tools to answer questions in public health and the environment. His past projects include the use of programming and visual libraries to develop simulation models for automating workflow processes, and the setting up of remote environmental sensing systems to automate real-time continuous monitoring, for early incident warning. He currently heads the quantitative reasoning domain, and is also director of the Quantitative Reasoning Centre, at USP. As an educator, Dr. Low has received both the USP Teaching Excellence Award, as well as the NUS Annual Teaching Excellence Award. Edmund holds a PhD in Environmental Engineering from Yale University.



## Program Credentials 项目收获

### ✓ Acceptance Letter 录取信

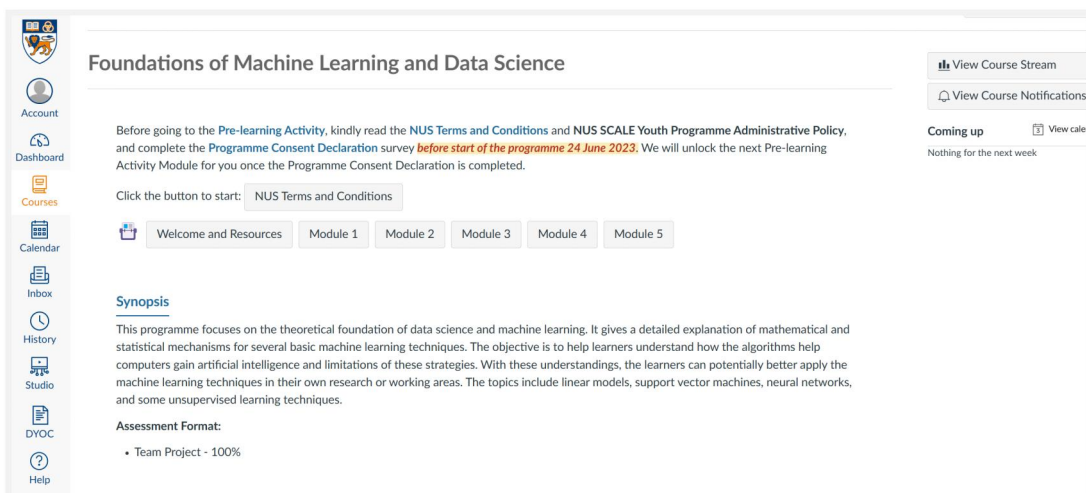
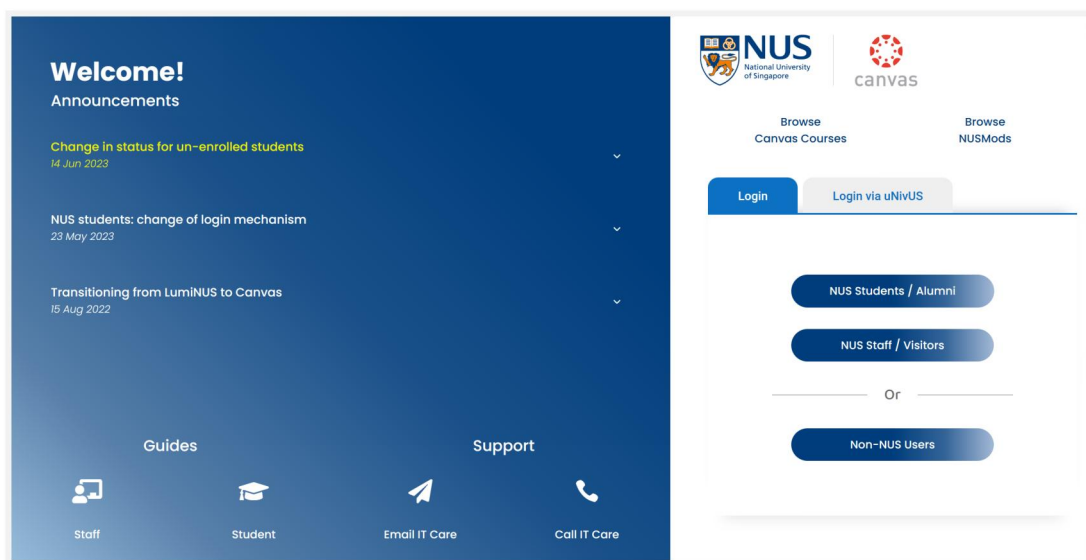
Students who participate in the NUS Summer Program, complete their registration and pass the screening process will receive an official acceptance letter.

参加新加坡国立大学暑期课程，完成报名且通过筛选的同学将收到官方录取信。

### ✓ Official Learning Platform 官方学习平台

NUS will set up individual accounts for participants on the NUS online learning platform, Canvas. Each student will use their Canvas account to receive school notifications, access study tasks assigned by lecturers, submit assignments, and download course materials.

新加坡国立大学将在其在线学习平台 Canvas 上为学员建立个人账户。每位学员都将使用自己的 Canvas 账户接收学校通知、访问讲师分配的学习任务、提交作业和下载课程资料。



✓ **Official Transcript 成绩评定报告**

At the end of the course, a report card will be issued to the participant based on his/her attendance, completion of course assignments and final report.

课程结束后，将根据学员的出勤率、课程作业和结业汇报的完成情况，将为学员出具成绩报告单。

✓ **Certificate of Excellence 优秀学员证明**

At the end of the NUS summer program, the lecturers will select the best group based on the completion of the final report of each group and award the best group members with a certificate of excellence.

新加坡国立大学暑期课程结束后，授课教授根据结业汇报各小组的完成情况，评选最佳小组，并为最佳小组成员颁发优秀学员证明。



✓ **Certificate of Completion 结业证书**

Participants who successfully complete the NUS Summer Program will receive an officially certified Certificate of Completion from School of Continuing and Lifelong Education as proof of this course of study.

顺利完成新加坡国立大学暑期课程的学员，将获得由新加坡国立大学主办学院颁发官方认证的结业证书，作为此次课程学习的证明。

[https://scale.nus.edu.sg/images/default-source/default-album/screenshot\\_2b23860804ee74d35b5ef315e3ce57962.jpg?sfvrsn=4c9e6e47\\_0](https://scale.nus.edu.sg/images/default-source/default-album/screenshot_2b23860804ee74d35b5ef315e3ce57962.jpg?sfvrsn=4c9e6e47_0)

※ This sample certificate is for display only and cannot be downloaded or used for promotional purposes. 该证书样本仅作为展示，不可下载或作为宣传使用。



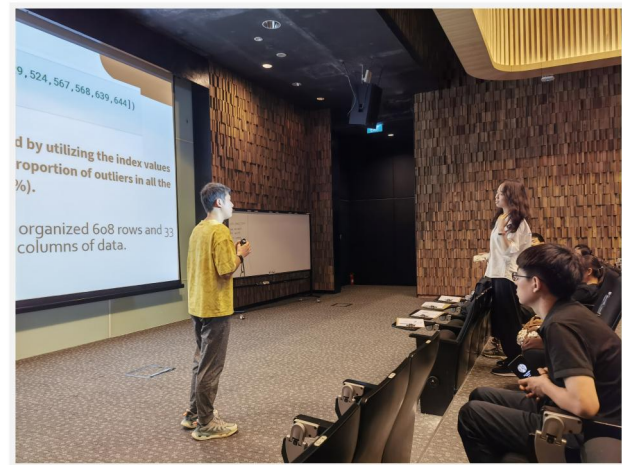
## Previous Photos Sharing 往期照片分享



**【Registration 签到 & Safety Orientation 安全宣讲】**



**【Academic Course 学术课程】**



**【Discussion 讨论 & Final Presentation 结业汇报】**