

## Imperial Data Science Online Winter School 往期回顾说明

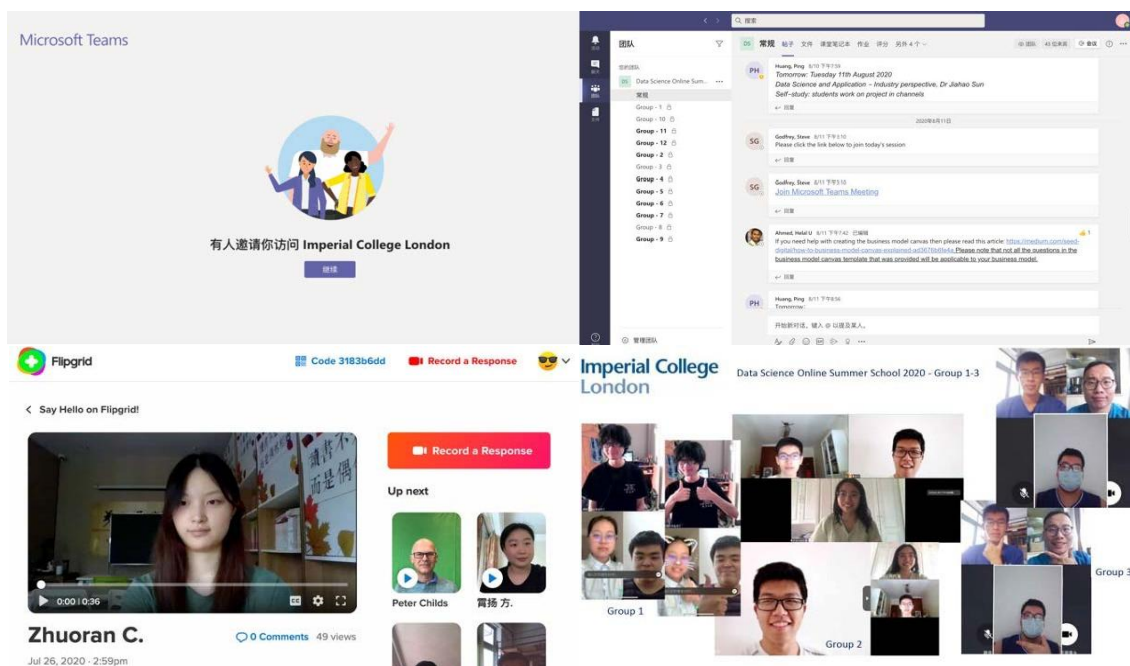
2023年，帝国理工学院将如期举行寒假学校。受全球疫情影响，寒假所有课程将在线举行。以下是关于Imperial Data Science Online Summer / Winter School的往期回顾及说明。



图为往期 Summer / Winter School 校友合影

### 一、教学方式及课程平台

2023 Imperial Data Science Online Winter School 将使用微软公司的 Teams 平台进行在线授课，同时使用 Flipgrid 等平台建立更具支持性、协同性的交流，进行积极的社交学习；使用 Box 作为云网盘提供课件、课程录屏等学术材料支持。



图为上述部分平台的截图展示

## 二、师资介绍及课程安排

暑校由帝国理工学院数据科学研究所(Data Science Institute, 帝国理工学院六大全球研究所之一)创始所长、英国皇家工程院院士、华人科学家：郭毅可教授领导并将亲自授课。

往期其他导师包括但不限于: Zhengming Chen教授 (英国牛津大学流行病学专家), Peter Childs院士 (帝国理工戴森设计工程学院院长, 英国皇家工程院院士), Mark Thomas Kennedy教授 (帝国理工数据科学研究所联合所长, 商业分析实验室主任)等。



图为2022 Winter School 教学团队



Imperial College London

Home Research Publications

**Professor Yi-Ke Guo**  
Faculty of Engineering  
Co-Director of the Data Science Institute

**Summary**

Yike Guo is a Professor of Computing Science in the Department of Computing at Imperial College London. He is the founding Director of the Data Science Institute at Imperial College. He is a Fellow of the Royal Academy of Engineering (FREng), Member of Academia Europaea (MAE), Fellow of British Computer Society and a Trustee of The Royal Institution of Great Britain.

Professor Guo received a first-class honours degree in Computing Science from Tsinghua University, China, in 1985 and received his PhD in Computational Logic from Imperial College in 1993 under the supervision of Professor John Darlington. He founded Informatica, a software company specialized in big data analysis for life science and medicine, and served as CEO for several years before the company's merger with CDS, a global advanced R&D software provider, in 2009. He was then the Chief Innovation Officer of the IDEBS until 2018. He also served as the Chief Technical Officer of the transSMART foundation, a global alliance in building open source big data platform for translational medicine research.

He has been working on technology and platform for scientific data analysis since the mid-1990s, where the research focuses on data mining, machine learning, and large-scale data management. He has contributed to numerous major research projects including the UK EPSRC platform project, Discovery Net, the Wellcome Trust-funded Biological Atlas of Insulin Resistance (BAR),

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**Location**

**Affiliations**

- AI for healthcare
- Artificial Intelligence Network
- Centre for Administrative Optimisation
- Centre for Cardiac Engineering
- Centre for Cryptocurrency Research and Engineering
- Data Science Institute
- EPSRC Centre for Maths of Precision Healthcare
- Electronics/Software Programme
- Network of Excellence in AI Quality
- Space Lab
- UK Seed&Spark
- Urban Systems Lab

**Links**

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**Professor Yike GUO FREng MAE**  
Professor, Department of Computing, Imperial College London  
Founding Director, Data Science Institute (DSI), Imperial College London  
Vice President, Hong Kong Baptist University

**Fellow of the Royal Academy of Engineering**  
**Member of Academia Europaea**  
**Trustee of the Royal Institution of Great Britain (Ri)**  
**Fellow of British Computer Society**  
**B.Sc. (First Class), Computing Science, Tsinghua University**  
**Ph.D. (Best Thesis Award), Imperial College London, UK**  
**The youngest professor in the UK when he became a full professor**

**Generated over £30 million external funding in five years**  
**Published more than 260 papers in journals and conference with citation over 16000**  
**Expert Committees**  
**Editorial Board**

Email: a.guo@imperial.ac.uk

**President Xi's visit**  
2015

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**Transforming the future of healthcare with data science**

**Zheng-Ming CHEN MBBS DPhil**  
Richard Peto Chair Professor in Epidemiology  
Big Data Institute & Nuffield Dept. Population Health,  
University of Oxford  
(Zhengming.chen@ndph.ox.ac.uk)

Imperial College Data Science Online Winter School,  
2 Feb 2021

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Our team: Zhengming Chen

**PROFESSOR ZHENGMING CHEN**

**Zhengming Chen**  
DPhil

**PROFESSOR OF EPIDEMIOLOGY AND DIRECTOR OF CHINA PROGRAMMES**

- MRC PHRU Programme Leader
- Clinical Trial Service Unit and Epidemiological Studies Unit

**CONTACT INFORMATION**

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**WEBSITES**

China Oxford Centre for International Health Research

**RECENT PUBLICATIONS**

**Alcohol metabolism genes and risks of site-specific cancers in Chinese adults: An 11-year prospective study.**  
Journal article  
In PK, et al. (2022), *Int J Cancer*

**Natural history of silent ischaemic infarction: 10-year follow-up of a community-based prospective study of 0.8 million Chinese adults.**  
Journal article  
Hao Z, et al. (2021), *Lancet Reg Health West Pac*, 17

**Gender differences in modifiable risk factors for hip fracture: 10-year follow-up of a prospective study of 0.8 million Chinese adults**  
Journal article  
CLARKE R, et al. (2021), *Journal of Internal Medicine*

**Hospital management of major stroke types in Chinese adults: a population-based study of 20 000 hospitalised stroke cases.**  
Journal article  
Qin H, et al. (2021), *BMJ Open*, 11

**Correlation between chronic diseases and low**

**Oxford Medical Big Data Institute**

Imperial College London

图为2022年Winter School的两位教授(从左往右):

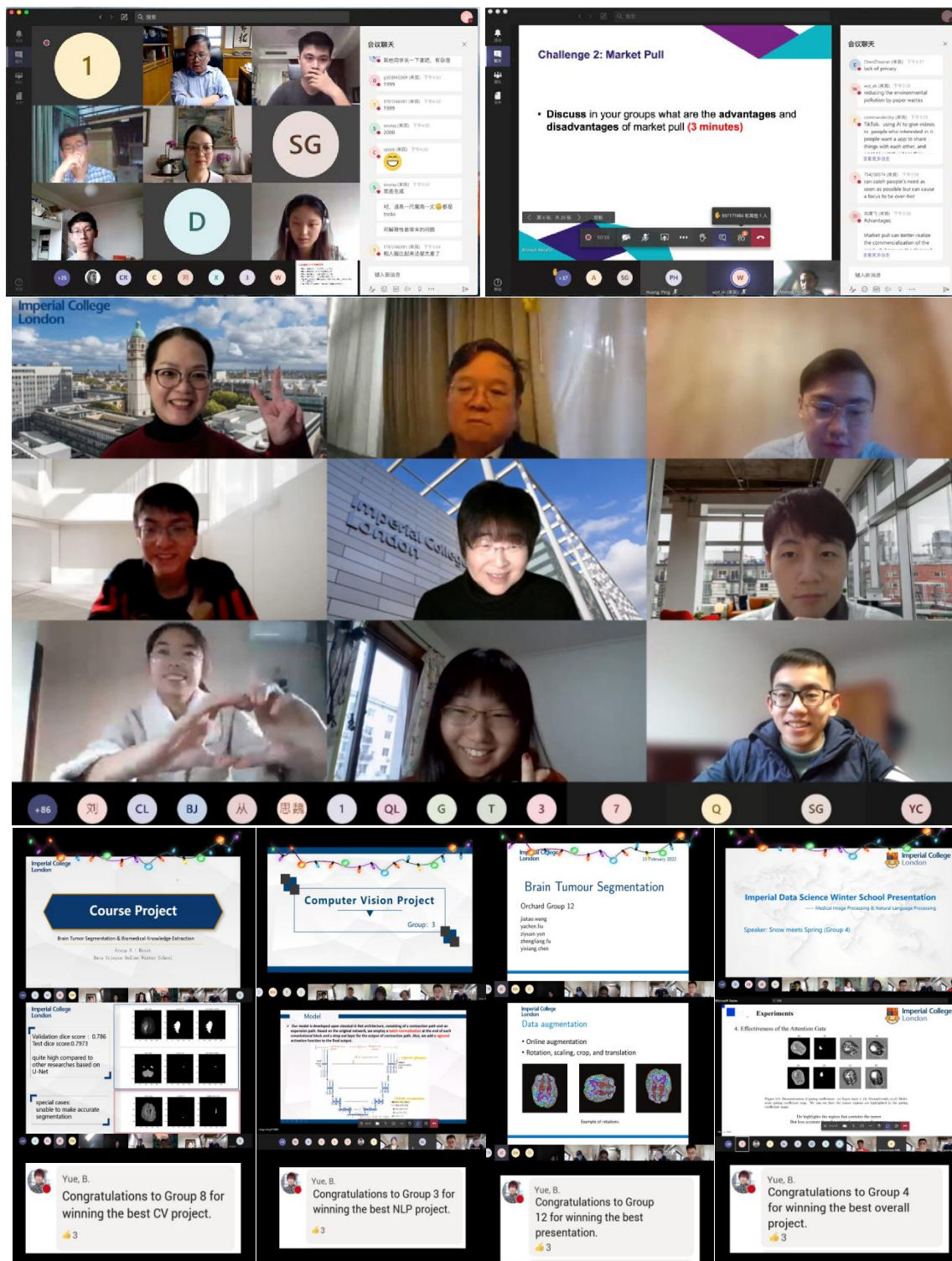
Yike Guo教授(数据科学研究所创始所长、英国皇家工程院院士)、Zhengming Chen教授(英国牛津大学流行病学专家)



在Winter School中，学生将学习数据科学、人工智能、机器学习等主题课程。

帝国理工学院将在寒校开始前对录取的学生进行分组，课程期间学生将在导师的指导下以小组为单位完成一个专业项目，辅导老师将会在 tutorial 环节为各小组提供帮助。

课程最后一天，学生将进行小组展示，评委老师将会根据学生的完成及表现情况进行打分。



往期 Summer / Winter School 的课程截图和项目展示截图

### 三、结业证书

顺利完成项目的学生将收到由帝国理工学院颁发的官方证书及成绩单。获奖小组将获得由帝国理工学院签发的Award Letter。

Imperial College  
London

It is hereby certified that

successfully completed the

**Data Science Online Winter School**

Organised by the Data Science Institute in collaboration with  
the Centre for Continuing Professional Development  
on  
24<sup>th</sup> January to 15<sup>th</sup> February 2022  
for a total of 41 hours

15<sup>th</sup> February 2022  
Date

Imperial College of Science, Technology and Medicine  
FOUNDED BY ROYAL CHARTER ON 8 JULY 1907

Imperial College  
London

**Winter School Transcript**

Student number: [REDACTED]

Student name: [REDACTED]

Course name: Data Science Online Winter School

Course duration: 24<sup>th</sup> January to 15<sup>th</sup> February 2022

Course hours: 41 hours

Grade (based on overall project assessment) A - Distinction

Project	Grades breakdown/criteria:	Percentage out of criteria
CV (40%)	Accuracy of model (20%)	[REDACTED]
	Rationale of model design (20%)	[REDACTED]
NLP (40%)	Completeness of project (30%)	[REDACTED]
	Final report (10%)	[REDACTED]
	Presentation skills and teamwork (20%)	[REDACTED]
	Total percentage:	[REDACTED]

Grading scale:

Grades	Percentage equivalent
A - Distinction	70-100%
B - Merit	60-69%
C - Pass	50-59%
D - Fail	0-49%

15<sup>th</sup> February 2022  
Date

Suma McCay  
Vice Provost (Education)

Dr [REDACTED]  
Academic Registrar

Betty Yue  
Head of Centre for Continuing  
Professional Development  
Imperial College London

Professor Yike Guo  
Director of the Data Science Institute  
Imperial College London

### 四、部分同学反馈及分享

梁汉杰同学 - 2022年2月收到英国帝国理工学院计算机系offer  
Imperial Data Science Online Summer School 2021 校友

在去年四五月份的时候，我通过同学偶然间看到了帝国理工学院数据科学的暑校项目，在短暂浏览课程设置与申请要求后，我几乎立即就开始了申请的准备工作，最后也很幸运的得到了暑校的录取。

暑校的课程内容十分“硬核”，里面的知识基本覆盖了数据科学领域的大部分内容，听完暑校后基本会对整个领域有一个初步的了解。

此外，暑校授课的老师也是大咖云集，像郭毅可教授这种院士级别的大佬也会到场为我们上课与解答疑惑，其他领域的业内人士也会给我们分享数据科学与人工智能领域在他们行业内的应用，且每周我们都会会有机会与帝国理工的在读同学进行交谈，了解他们对学校的看法等等。

整个暑校最重要的是要完成两个项目，这个非常考验整个团队的协作与科研能力，我们需要在短短的几周时间内完成项目报告等内容，完成的过程中我们可以学习到很多专业的知识，能很好的加深我们对于该项目内容的理解，而最后课程的评分也是根据项目的完成情况做出评价。

参加暑校也能增加后续进入帝国理工学习的机会，丰富申请时文书的内容，让自己的简历更为出彩。

- “An opportunity to actually get real practice of ML and to meet so many outstanding teachers and classmates. It's indeed a wonderful experience, learning knowledge and coming across with so many excellent teachers and classmate. Only pity is that we cannot meet offline and go to IC to have a look.”*

*-student from Zhejiang University.*
- “Prof Yike Guo broadens our horizons about what AI is really like and the difference between Engineering and Science. It is helpful for my further plan about both career and education. It is great for someone who is interested in Machine Learning and is better for CS-background students to come. Besides, it is quite different from the Data Science major in our school, which is more related to finance and economics.”*

*- student from Xiamen University.*
- “The most useful features as far as I am concerned is that this programme provide a window for me to know the advanced work of data science and get a sensible and reasonable comprehension of deep learning. I think it opens a door to the world of data science for me.”*

*-student from Zhejiang University.*
- “This programme is very rich in content and let me have a comprehensive understanding of data science. I think taking this programme is an excellent way to learn data science.”*

*-student form Harbin Institute of Technology.*
- “The program tutorial and group project are very useful and inspiring.”*

*-student from Southeast University.*
- “Help me learn more about machine learning. This is the first time for me to carry out this kind of projects so it really inspired me on this field. Really helpful for my future study.”*

*-student from Dalian University of Technology.*
- “It covers various aspects of data science and artificial intelligence. I really have learned a lot through the programme and thanks to all professors, supervisors and all friends here~”*

*-student from Shanghai Jiaotong University*
- “I learn how to use machine learning in practice. Teachers are excellent and teammates also helped me a lot.”*

*-student from Zhejiang University.*