

在名校申请中 如何让自己脱颖而出

主讲人：余一笑

顶级院校录取要求是什么？

标化成绩： *A-LEVEL*、 *IB*、 *AP*、 *GPA*、 托福/雅思
/SAT/ACT/GRE/GMAT

综合素质：你所参过的活动经历



普林斯顿大学最新招生要求

Statement to the Class of 2025

Dear Prospective Applicants:

We realize that we are living in unprecedented times, and the Office of Admission, like many of you, is thinking ahead to next year and the college application process. While there is still a lot we don't know, we want to reassure you about our process for this coming application cycle.

As always, we are committed to a holistic review, in which we look at your whole application, not just the quantitative pieces. Our goal is to build a campus community that enriches the learning of all students. To do that, we must consider not just grades, rigor of curriculum, and testing, but also the less quantitative pieces of an application, including your essays and your recommendation letters. Please also note that “demonstrated interest” is not a part of our review, though we encourage you to visit our website and engage in our virtual tour to learn more about the Princeton campus.

哥伦比亚大学最新招生要求

Virtual Information Sessions and Spring 2020 Update for Prospective Students

We know your college search process right now looks very different than you imagined and that you may have some questions. We hope the information gathered here provides you with some reassurance.

Visiting Campus

Though guests are currently unable to visit campus, we are committed to sharing all of the incredible pillars of the Columbia experience with you. We invite you to sign up for a [virtual information session](#), explore campus with our [virtual tour](#) and learn more about the student experience through day-in-the-life videos on our [YouTube channel](#). Please be assured that we do not track demonstrated interest as a factor for admission, so the current inability to engage in traditional interactions with our office will not be a disadvantage for applicants.

Academic Experience

Please be assured that Columbia Undergraduate Admissions fully supports the pedagogical and administrative decisions your school may make in order to assist your community through this crisis. **For example, pass/fail marks or alternative grading methods in lieu of letter or numerical grades this spring will be accommodated with no disadvantage when we review applicants' transcripts next year and beyond.**

Extracurricular Activities and Summer Pursuits

We understand that disruptions due to this crisis may alter the trajectory of your extracurricular, athletic, artistic and other pursuits. It is possible that summer programs and other enrichment experiences will be impacted as well. Just as your high school experience and college search process is altered, we know that future college applications will likely look different than they have in the past, and we will review your application within this context.

Testing

Testing options around the world have been affected. We remain committed to our [holistic and contextual review process](#) that considers the individual circumstances that shape each applicant's journey. **Columbia does not require SAT Subject Tests or Advanced Placement exams**, and students are at no disadvantage in our process if they do not submit scores from these tests. Please note that we accept SAT and ACT scores from November test dates for Early Decision applicants and scores from January test dates for Regular Decision applicants.

Financial Aid

Columbia remains committed to our need-based financial aid program, which seeks to ensure that students from all backgrounds can attend Columbia. **We meet the full demonstrated need of all admitted first-year applicants for all four years of study and do so without loans.** Anticipate your college costs with Columbia's [MyinTuition Quick College Cost Estimator](#), which can also help you estimate your eligibility for need-based scholarships.

Lastly, and most importantly, the Columbia community urges you to stay healthy and safe. We are thinking of you all and look forward to getting to know you over the coming months or years.

综合素质——
学术能力/背景
课外活动实践经历

我们该如何选择背景活动？
——体现独特特色/特质

但80%的高中生家长都会忽略的
“背景提升的误区”

只要有

短期的夏令营结业证书、实习证明、志愿者经历.....

就能申请到顶级名校？

真正有用的学术背景 到底是什么？

游学结业证

夏校经历

实习证明

科创经历 ✓

论文发表 ✓

竞赛奖项 ✓

参与国内外科研院所教授科研课题

论文发表：国家级期刊、*CPCI*、*SCI*等

全国青少年科技创新大赛

*AMC*数学竞赛

沃顿商赛

丘成桐中学生科学奖

数学建模大赛*MCM/ICM*

奥赛



先导课程

深度学习快速入门指南

Linux基础

由于服务器使用了Linux，推荐使用Linux进行开发。具体推荐使用Ubuntu。

了解常用的Linux指令。主要是文件操作相关指令（cd ls mkdir touch cat mv cp rm），熟悉ssh。

了解环境变量的概念。知道如何控制更改终端中的环境变量。

这部分网上教程较多，不做推荐。

Python基础

如果你已经有其他编程语言的基础，或者之前学习过Python，推荐这个[快速教程](#)来做一个回顾。并熟悉使用 numpy 进行矩阵操作。

如果你在编程方面是个小白，推荐[廖雪峰的Python教程](#)，快速过一遍即可。看到 错误、调试和测试 一节。使用时可以现查。

如果只为快速上手Python，只需在[runoob.com](#)中，看完 运算符、数字、字符串、列表、元组、字典、集合、流程控制、迭代器与生成器、函数、数据结构、输入和输出、File、os、面向对象。自己动手实现样例即可。

Tensorflow入门

推荐[官方中文教程](#)，体验静态图编程过程。

用两种方式完成手写体分类任务：1. 全连接方式实现[教程](#)；2. 卷积神经网络[教程](#)

Keras入门

强烈推荐下面的书：《Python 深度学习》，Keras之父编写。

Keras是一个深度学习框架的前端。它的后端可以是Tensor flow。对于Keras已经封装好的模块，可以直接调用，非常方便。而对于Keras没有实现的，也可以在Keras中使用Tensorflow手动创建。

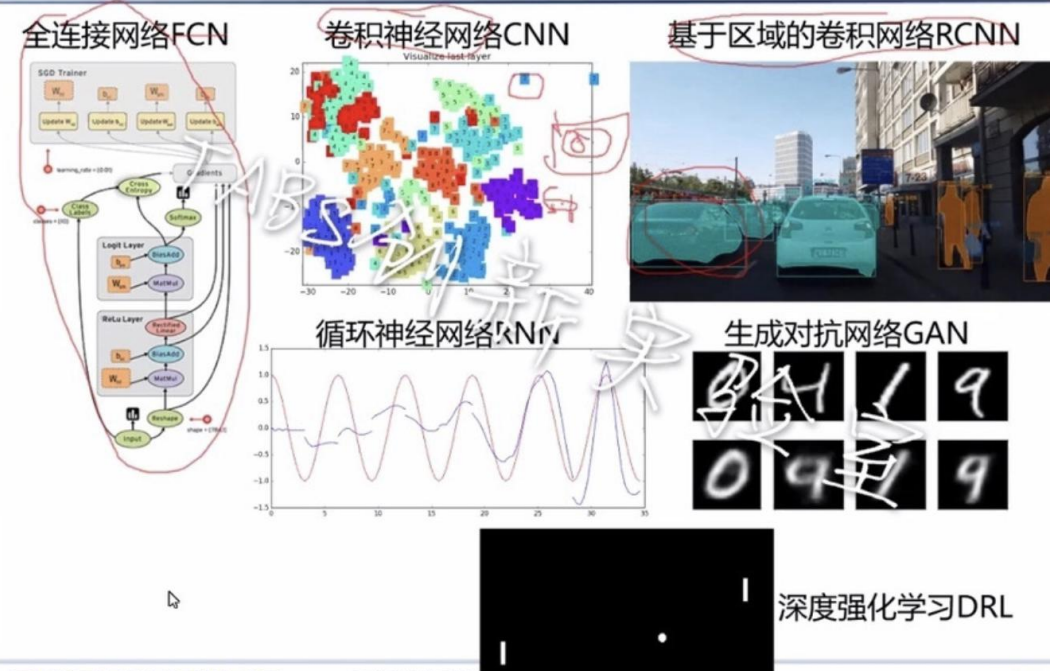
Pdf下载：<https://pan.baidu.com/share/init?surl=WOAfraSSY56247A8oDUPgg>

提取密：pfo3

通过这本书，你将完整入门Keras。学到神经网络的基础数学运算，卷积神经网络（1D、2D），反卷积，循环神经网络（LSTM、GRU），词嵌入，验证方法，Dropout，热力图，卷积核可视化，激活通道可视化，变分自编码器。以及各种实例，如：温度预测、猫狗分类、文本正负评价分类等。

线上教学+讨论

重点模型



深度学习带来的技术变革



学生周报

本周思考和疑问：

1. All most all the problems are because of the application of the function cv2.imread(which is a function from the cv2 library)：

Here is part of my code：

```
def read_directory(directory_name):
    T = 0
    X = []
    for filename in os.listdir(directory_name):
        img = cv2.imread(directory_name + '/' + filename + '.jpg', cv2.IMREAD_GRAYSCALE)
        img = img.ravel()
        img = img[:28*28*3:3]
        X.append(img)
        T = T+1
    Y = os.listdir(directory_name)
    yy = []
    for i in range(len(Y)):
        yy.append(int(Y[i][0]))
    y = np.zeros((len(yy),10))
    for i in range(len(yy)):
        y[i][yy[i]] = 1
    return X,y
```

The directory_name represent the location of my picture, filename represent the name of my pictures, pictures will be called though this for loop automatically, in each loop, the function will store the RGB value into a array named img, after put the img into a vector, img will be stored in the next digit of x, x will become a two-dimensional array of trainsize*picturesize at last,. And the first letter of the picture name mean the y-value of the picture, so I store it in y, which is a two-

Faster-RCNN 的结构

Vgg16

每个图象都会在开始经过一个 conv layer 识别特征，作者使用的是 vgg16，包含 13 个 conv，13 个 relu，4 个 pooling，图像缩小 16 倍，识别出 256 个特征，因此每个图片的每个像素点在输出的结果都是 256 维的,这就得到了 feature map。

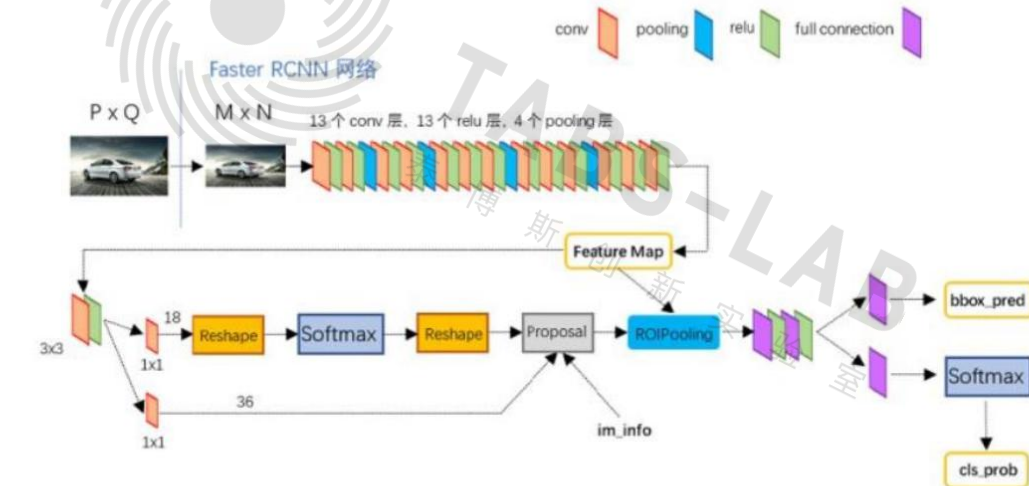


图2 faster_rcnn_test.pt网络结构 (pascal_voc/VGG16/faster_rcnn_alt_opt/faster_rcnn_test.pt) 750

录稿案例

Acceptance Notification

2020-03.27

Dear 袁 先生

I am happy to inform you that on the recommendations of the referees, your paper titled “**Study on AC Electroosmosis Driving Aqueous Solution**” has been accepted to publish in IOP Conference Series: Materials Science and Engineering (MSE), which will be indexed by EI/ISTP.

Paper ID: ICEECA 2020_0165

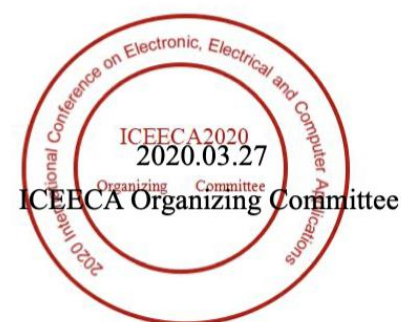
We sincerely invite you to come to Osaka, Japan to attend the meeting. The relevant matters are hereby notified as follows:

1.Submit author's information registration form

Please download and fill in the author's information registration form in time so that we can contact you and send it to you accurately after publication.

2.Registration

Please pay for the registration fee in time, and be sure to clearly indicate the article registration number when paying.



Acceptance Notification

2020-0117

Dear 袁 先生

I am happy to inform you that on the recommendations of the referees, your paper titled “**Numerical study on performance of a bended-slot casing treatment based on free-form deformation method**” has been accepted to publish in Journal of Physics: Conference Series (ISSN: 1742-6588), which will be indexed by EI/ISTP.

Paper ID: ICAIIT 2020_0114

We sincerely invite you to come to Seoul, Korea to attend the meeting. The relevant matters are hereby notified as follows:

1.Submit author's information registration form

Please download and fill in the author's information registration form in time so that we can contact you and send it to you accurately after publication.

2.Registration

Please pay for the registration fee in time, and be sure to clearly indicate the article registration number when paying.



FRANCIS-PRESS

OPEN ACCESS JOURNALS AND PROCEEDINGS

Francis Academic Press NOTIFICATION OF ACCEPTANCE

We're glad to inform you that your paper:

Paper ID: W39505

Paper Title: Research Report on Profit Maximization of Sports Shoes (Nike)—Modeling and Finding Solution

Author(s): Yu

has been Accepted!

It is planned to be published in **The Frontiers of Society, Science and Technology (ISSN:2616-7433)** 2019. Please make the payment as Article Processing Fee and timely payment will help us to include your article in this issue itself. Otherwise it will be considered for next issue.

Francis Academic Press
Acceptance

Z. Lin



课 题

课题领域	课题编号	课题名称	适合专业	导师简介
计算机&人工智能类	1	机器学习核心算法在影视宣发中的应用	计算机科学、人工智能、机器学习、大数据	中国科学院计算技术研究所副研究员
	2	基于深度学习的海量图像识别算法研究	计算机科学、人工智能、深度学习等	中国科学院计算技术研究所副研究员
	3	基于人工智能的网络流量异常检测	计算机科学、人工智能、深度学习、软件工	中国科学院计算技术研究所副研究员
	4	卷积神经网络模型压缩与加速	计算机科学、人工智能、机器学习、大数据	中国科学院计算技术研究所副研究员
	5	AI 算法的系统基础	计算机科学、人工智能	中国科学院计算技术研究所副研究员
力学&工程类	6	交流电渗驱动流体研究	流体力学、材料学等	中国科学院力学研究所，国家微重力实验室，副研究员
	7	压气机流动稳定性研究	物理、热力学	中国科学院供热所副研究员
	8	通风系统研究设计	流体力学、空气动力学	哈尔滨工业大学副研究员
	9	3D打印在航天航空方面的应用	物理、工业设计	北京工业大学副研究员
物理类	10	光信号的无线传输与光波天线理论和设计	物理、凝聚态、材料、光学、光电等	南丹麦大学物理系研究员 杨教授
	11	光学芯片设计和制造	物理、凝聚态、材料、光学、光电等	南丹麦大学物理系研究员 杨教授
	12	纳米尺度光与物质相互作用及其应用研究	物理、凝聚态、材料、光学、光电等	南丹麦大学物理系研究员 杨教授
	13	凝聚态及纳米光学研究	物理、凝聚态、材料、光学、光电等	南丹麦大学物理系研究员 杨教授
经济学&商科类	14	经济学基础与商业分析	经济学、金融、财务管理、公司管理	中国科学院 战略问题咨询研究中心 副主任
	15	国内外产业政策研究	经济、金融、商业分析	中国科学院 战略问题咨询研究中心 副主任
	16	环保企业商业模式研究	经济学、金融、企业管理	中国科学院 战略问题咨询研究中心 副主任
	17	小额信贷与扶贫研究	经济学、金融、社会学	中国科学院 战略问题咨询研究中心 副主任
	18	企业投融资政策研究	经济学、金融、投资分析	中国科学院 战略问题咨询研究中心 副主任
	19	贸易政策及相关政治经济因素研究	经济学、金融、企业管理	中国科学院 战略问题咨询研究中心 副主任
心理学类	20	认知心理学	脑科学，神经学，医学，心理学，社会学等	中科院心理所教授研究员，博士生导师

课题领域	课题编号	课题名称	适合专业	导师简介
数学类	22	数据科学及大数据分析	数学、金融、经济、大数据分析、统计学、	中国科学院数学与系统科学研究所 朱教授
	23	信息安全与密码学研究	数学、密码学、逻辑学	中国科学院信息工程研究所 吴教授
电子工程类	24	电子工程及芯片设计研究	电子工程、通信工程	中国科学院计算技术研究所副研究员
生物医学类	25	哺乳动物保护及其生物多样性研究	动物学、生物学、环境学、生态学等	中国科学院动物研究所 副研究员
	26	新型杆状病毒包装技术及其应用	生物学、医学、免疫学、遗传学、病毒学等	德国德国联邦栽培植物研究中心 博士后研究员
	27	新药是如何发现的？	药学、生物学、免疫学等	北京大学 药物化学 博士
	28	探究野油菜黄单胞中XCC中GroEL的功能	微生物学、分子生物学	上海交通大学生命科学技术院副研究员
	29	模式动物线虫的表现遗传学研究课题	遗传学、发育生物学	中科院生物物理所副研究员
	30	急性炎症过程中天然免疫细胞的作用	遗传学、发育生物学	中科院生化细胞研究所副研究员
	31	抗癌活性产物的生物合成研究	分子生物学、食品科学	浙江大学生物系统工程与食品科学学院副研究员
	32	转基因果蝇及分子生物学研究	遗传学、分子遗传学	中科院生物物理所研究员
社会学类	33	流动人口高校招生政策的国际比较研究	社会学、教育学、人口学等	中国科学院 战略问题咨询研究中心 副主任
	34	随迁子女接受义务教育的政策研究	教育学、社会学、心理学等	浙江大学教育学 博士
	35	社会经济学调查研究	社会学、经济学	社科院经济研究所副研究员
	36	居民环境行为的变化及其影响因素研究	社会学、环境工程	社科院经济研究所副研究员
化学工程类	37	新能源材料表面改性与处理技术研究	化学工程、材料学	中国金属研究院副研究员

做好背景提升的时间规划

初中三年规划

初中阶段，开始进入知识深入积累阶段

在这个阶段，对于科学素养的培养，重在启蒙和体验，是一个科研探索的开端，让孩子得到科学探索乐趣以及意识到科学的追求和探索并非是只有已经身为大咖的科学家们的事情。

了解简单的查阅文献方法，逐步清晰自己的兴趣方向

该阶段，建议学生参加各类大小比赛，锻炼学生演讲沟通能力、自学能力、批判性思维等等

高中阶段规划

第二阶段（深入课题6个月以上），有了第一阶段的基础，学生对于课题方向有了自己的想法，加上有基础知识，就可以开始深入做科研项目，可以写论文。大家都明白，任何科学家的成长都不是一蹴而就，都仰仗于从小习得的探索习惯和学习方法；任何科研成果也都不是几周、几个也就能完成的。

在这个阶段，我们加强培养学生科学的逻辑、协调能力、领导力、科研动手能力等等。为未来学生进入大学，打好基础。

同时我们可以获得的成果：参加的比赛有：明天小小科学家、中国青少年科技创新大赛、英特尔工程大赛、丘成桐学科赛、国际数学建模大赛等等。

理想时间规划建议：

高一：确定课题，参加课题。

高二：科研背景、语言、标化成绩，查漏补缺

高三：安安心心写文书，申请学校

大学四年规划

大一：确定课题

大二：开始参加课题并完成论文，跟进论文情况可参加比赛

大三：科研背景、语言、标化成绩，查漏补缺

录取案例



February 14, 2020

Dear YULIN,

Congratulations! On behalf of the field of Applied Economics and Management, I am delighted to offer you admission to the MS program housed within the Charles H. Dyson School of Applied Economics and Management at Cornell University beginning fall 2020.

Calum G. Turvey
Director of Graduate Studies

450A Warren Hall
Ithaca, NY 14853-7804

Charles H. Dyson
School of Applied Economics
and Management
Cornell SC Johnson College of Business
College of Agriculture & Life Sciences



OFFICE OF THE DEAN OF STUDENTS
DIVISION OF THE SOCIAL SCIENCES

1126 E. 59TH STREET
CHICAGO, ILLINOIS 60637

OFFICE: 773-702-8414
ADMISSIONS: 773-702-8415
WEB: socialsciences.uchicago.edu

March 5, 2020

Wang
Road
China

Dear Wang:

Congratulations! On behalf of the Division of the Social Sciences, I am delighted to offer you admission to the University of Chicago for graduate study in the Master of Arts Program in the Social Sciences beginning in the 2020-2021 academic year. In addition, I am pleased to inform you that we can offer financial assistance. The conditions of admission and aid are outlined in the attached Admission and Financial Aid Offer Form and Terms & Conditions for Offers of Admission for 2020-2021. Please also review the attached New International Students Visa Eligibility Document concerning English proficiency, verification of finances, and academic credentials. If you have any questions, please write to us at ssd-admissions@uchicago.edu.

托福106、GRE329

浙大

参加的课题：产业政策

托福106、GRE329

北大

参加的课题：企业金融

录取案例



February 12, 2020

Dear

Congratulations! On behalf of the faculty, we are delighted to inform you that you have been admitted to the M.S.E. program in Mechanical Engineering in the Whiting School of Engineering at Johns Hopkins University, beginning in the Fall 2020 term. You will be joined by classmates that share your passion and qualifications to create and develop engineering solutions that will change lives around the world.

As a master's student, you will gain advanced knowledge and expertise from our world-class faculty in areas as diverse as biomechanics, fluid mechanics, mechanics of materials, robotics, advanced manufacturing, and computation and data-enabled engineering. Our master's (MSE) program provides opportunities for you to tailor your curriculum to fit your interests and career aspirations; you can [specialize your coursework](#) or design a curriculum that spans a large range of topics. You can also combine in-class instruction with [online courses](#) to further enhance your curricular options.

MSE students will have the opportunity to work one-on-one with our faculty, who are world-renowned leaders in their fields. Hopkins has been a pioneer in graduate education since its founding; our research programs are highly interdisciplinary and collaborative, and we stress the exploration of innovative and often unconventional ideas.

托福106、GRE329

北航

参加的课题：空气力学及航空发动机研究

Mr. Ray

St. John Vianney High School Junior

OFFER: 加州大学伯克利分校 (*University of California, Berkeley*)

TOFEL 103 | ACT 32

背景提升项目：数学建模与跨学科应用

Berkeley Office of Undergraduate Admissions
UNIVERSITY OF CALIFORNIA

Logout

START HERE

ACADEMICS

TUITION

BE BERKELEY

VISIT

BLOG

March 28, 2019

[Download PDF](#)



ang
#7226
Dei

Congratulations! I am delighted to offer you admission to the University of California, Berkeley for fall 2019! You have been admitted to the College of Letters and Science.

If you choose to enroll, you will need to select a First Year Pathway in addition to accepting your offer of admission. Learn more about these pathways and the opportunities they present for your start at UC Berkeley by reading the [First Year Pathways information sheet](#) which is linked at the bottom of this page. Once you have found the right fit, accept your offer and choose your pathway. You'll want to act quickly to secure your spot in these programs, as space is limited.



录取案例



Dear L

Congratulations! On behalf of the Office of Admissions, it is my honor to offer you admission to the Fall 2020 semester at the University of Rochester. Your acceptance is a testament to your academic success, hard work, and commitment to leveraging your values, talents, and academic interests to make the world ever better.

Throughout our application review, the Office of Admissions prioritized a myriad of qualities beyond academics, including independent self-direction. Among many other reasons, I know you'll be a great fit at Rochester because of your interest in research. Opportunities here often mirror graduate studies elsewhere. You can collaborate with professors in well-equipped labs and libraries, or lead a study of your own.

For a major research university to thrive with just 5,500 undergraduates, each student has to make a thoughtful and personal contribution to campus life. We were impressed to learn about your research work at the Institute of Psychology at the China Academy of Sciences. Rochester fits you because you'll have the opportunity to do research as an undergraduate student. The Office of Admissions and I are confident you will both stand out and grow stronger as part of the Rochester family and in your own way continue to frame and solve the greatest challenges of the future, both locally and globally.

As a student admitted through Early Decision, you must complete the [Enrollment Reply Form](#) and submit your enrollment deposit by February 21, 2020 to confirm your place in the Class of 2024. You can complete your enrollment online. [View the admitted student booklet](#). If you have applied for financial aid, that information will also arrive soon.

Again, congratulations on your acceptance! I look forward to welcoming you to campus this fall as a part of the University of Rochester's 170th Class.

Meliora!

Jason B. Nevinger
Director of Admissions

山东青岛
托福：102、SAT：1450
参加课题：认知心理学

FROM ADMISSIONS PO BOX 28 CHELTENHAM GL52 3LZ CUSTOMER CONTACT CENTRE 0371 468 0 468 (UK) +44 330 3330 230 (International) 08:30 - 18:00 (UK time) MON - FRI WWW.UCAS.COM UCAS

Offer letter

AS3

Mr

International School
Pave Campus 12-1
Jin
Dalian
116600

Date:26 February 2020

Personal ID: [REDACTED]

Sch [REDACTED]

Please read ALL of this information

Dear M

Congratulations! UCL (University College London) is offering you a place for Medical Sciences and Engineering, HA11; starting on September 2020, at point of entry 1.

This offer is subject to you obtaining Award of the British Columbia Senior Secondary Graduation Diploma with 86% in at least five academic grade 12 subjects Award of the British Columbia Senior Secondary Graduation Diploma with 90% in grade 12 Calculus and Anatomy and Physiology and 86% in three other grade 12 subjects including Chemistry or Physics. Plus pass an English Language test approved by UCL at Good Level (see <https://tinyurl.com/y4rthuw6>), or provide evidence that you have already done so.

When you've heard back from all your choices

If you've now heard from every university or college you applied to, you'll need to make an informed decision about whether to accept this offer. To help you with this, the university or college is required to make information available to you under consumer protection legislation. You can find out more about what this should include on our [website](#). You should read and understand this information before making a decision about accepting an offer, as this is likely to form the terms and conditions of the contract between yourself and the university or college if you enrol onto their course.

Click on the links below to find out what you need to do next to reply to your offers:

- [Types of offer](#)
- [Reply deadline](#)

2020/3/9

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Offer letter

AS3

Mr A

International School
Pave Campus 12-1
Jin
Dalian
116600

Date:8 March 2020

Personal ID: [REDACTED]

Scheme [REDACTED]

Please read ALL of this information

Dear M

Congratulations! Imperial College London is offering you a place for Biomedical Engineering, BH9C; starting on October 2020, at point of entry 1.

This offer is subject to you obtaining British Columbia Diploma 90% in Maths, 85% in Physics, 85% in 3 other subjects and 90% overall. at grade 12 65% in grade 12 English in your Canadian High School Diploma These conditions must be met by 21st August 2020. This institution regards you as overseas for fees purposes and their offer has been made on this basis If you accept your offer of admission you will enter into a contract with the College. Our terms and conditions can be accessed at: <http://www.imperial.ac.uk/students/terms-and-conditions/>

When you've heard back from all your choices

大连加拿大枫叶国际学校
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通过为孩子量身定制学业规划与，国内顶尖科研机构合作，提供符合孩子兴趣和能力的科研创新项目，培养孩子自主学习的能力和科学素养。

通过搭建科普教育新媒体平台，拓宽孩子的视野，提升其综合素质，帮助其在竞争日益激励的社会环境中立足。

谢 谢 大 家