

SDHXCS Enrichment Classes (才艺课)

Subject (科目): Please select one of the categories	Computer Science		
Course Name (课程名称):	Foundation of Data Science (数据科学基础)		
Teacher Name (教师姓名)	Paul Cao, PhD (曹英俊)	Phone	(440) 320 – 2818
		email	cs4fun.sd@gmail.com
Teacher's background and brief (教师及其简介):	Dr. Paul Cao is currently a lecturer in the Computer Science & Engineering Department at University of California San Diego (UCSD) who won the best teacher award at UCSD in 2021. Before coming to UCSD, he was an Associate Professor of Computer Science at Ashland University (OH). He received his Ph.D. in Computer Engineering at Duke University. Paul has extensive teaching experience at the undergraduate and K-12 levels. He is in charge of undergraduate courses such as Computer Programming I and II, Computer Organization, and Advanced Data Structure. He is well known nationally on his research on Computer Science education, especially at the K-12 level. Paul Cao 目前是加州大学圣地亚哥分校 (UCSD) 计算机科学与工程系的讲师，他于 2021 年获得 Jacob 工程学院最佳教师称号。在加入加州大学圣地亚哥分校之前，他是亚什兰大学的计算机科学副教授。他具有杜克大学计算机工程专业的博士学位。Paul 在本科和 K-12 教育领域拥有丰富的教学经验。他在 UCSD 负责发展本科课程，如计算机编程 I 和 II，计算机组织和高级数据结构。他在美国计算机科学教育，尤其 K-12 教育研究领域中有较高声誉。		
Course brief and Description (课程简述):	This course aims to teach you how to draw conclusions about data. We will learn how to explore data and draw inference using data. These two components usually form the first two steps of data analysis. We will learn how to program in Python with a focus on numpy and pandas towards this goal. We will practice applying core data science concepts to real datasets from a variety of different disciplines. 本课程旨在教授如何从数据中得出结论。我们将学习如何探索数据，并利用数据进行推断。这两个部分通常构成数据分析的前两个步骤。为实现这一目标，我们将学习使用 Python 进行编程，重点掌握 NumPy 和 pandas 两个数据分析库。课程还将通过来自不同学科领域的真实数据集，实践并应用数据科学的核心概念。		
Course Objectives (课程目标):	Sample projects: - San Diego Public Employee Salary Analysis - United Airline Delay dataset - Coin Flip Simulation - Netherland Baby Weight Dataset		

Pre-requisite/Student Ages (先决要求/学生年龄要求):	12 years old to 18 years old 9 岁到 18 岁			
Student Evaluation / Presentation (评分方法 (演出、比赛、展示等)):	The evaluations will be based on regular homework assignments and final projects. 根据学生完成与否定期的家庭作业和最终项目给予期末评估。			
Maximum Number of Students to be Enrolled (最多招生人数限制):	Min: 5 Max: 15			
Course Fee (报名费 / 学费):	Registration & material fee	\$800/Year	Course Time & Location	Sundays 1:30 Pm – 3:00 Pm Building S5-203

