

Suraj Rampure

rampure@ucsd.edu • rampure.org

Employment

2021-

Lecturer

Halicioğlu Data Science Institute, University of California, San Diego

Education

2020-21

University of California, Berkeley

MS, Electrical Engineering and Computer Sciences

Thesis: *A New Data-Focused Introductory Programming Course*

Advisor: Josh Hug

2016-20

University of California, Berkeley

BS, Electrical Engineering and Computer Sciences

Awards and Honors

2021

Extraordinary Teaching in Extraordinary Times Award, UC Berkeley

2020

Distinguished Graduate Student Instructor Award, UC Berkeley EECS

2018

Outstanding Graduate Student Instructor Award, UC Berkeley

Teaching

University of California, San Diego

DSC 10: Principles of Data Science

Instructor: [Fall 2023](#), Spring 2023, Fall 2022, Winter 2022, Fall 2021

An introduction to Python and Jupyter Notebooks as tools for tabular data manipulation, visualization, and statistical inference. Significantly revised lectures and created new assignments, exams, and infrastructure, while managing up to 30 instructional assistants.

Enrollment: 200-500 students.

DSC 180AB: Data Science Project I + II

Instructor and Coordinator: [AY 2023-24](#), AY 2022-23

Required two-quarter capstone sequence for all senior data science majors. Developed new lessons and assignments to supplement student projects after surveying faculty about curriculum deficiencies (e.g. resolving Git merge conflicts in Jupyter Notebooks, using LaTeX, using `torch` on GPU-enabled servers). Managed faculty onboarding and student enrollment. Provided faculty and students with weekly guidelines and organized annual poster sessions.

Enrollment: 200-240 students.

DSC 40A: Theoretical Foundations of Data Science I

Instructor: Spring 2024, [Fall 2021](#)

A proof-heavy treatment of empirical risk minimization and supervised learning using linear algebra; also introduces discrete probability. Revised lectures and assignments.

Enrollment: 140 students.

DSC 80: Practice and Application of Data Science

Instructor: Winter 2024, [Winter 2023](#), Spring 2022

A project-heavy course focused on the data science lifecycle, with topics ranging from [pandas](#), [BeautifulSoup](#), and regular expressions to missing value imputation, cross-validation, and logistic regression. Significantly revised lectures and assignments.

Enrollment: 125-200 students.

DSC 90: History of Data Science Seminar

Instructor and Course Designer: [Spring 2022](#), Winter 2022

A guided tour of the origins of key ideas in data science, including calculus, probability, linear regression, visualization, and programming. Developed all content from scratch.

Enrollment: 15-30 students.

DSC 95: Teaching Apprenticeship in Data Science

Instructor: Spring 2024, [Spring 2023](#)

Required training for first-time undergraduate instructional assistants. Developed several new lessons and a final project in which students were required to develop instructional materials for their courses; provided all students with multiple rounds of feedback.

Enrollment: 18 students.

CSS 201/2025: Teaching Apprenticeship in Data Science

Instructor: [Summer 2022](#)

Taught one week of an eight-week, 9AM-5PM bootcamp for incoming Computational Social Science MS students; introduced students to Python. Created lectures and assignments.

Enrollment: 8 students.

University of California, Berkeley

Data 94: Introduction to Computational Thinking with Data

Instructor and Course Designer: [Spring 2021](#)

A small-scale introductory programming course designed to attract non-major students to data science. Created most lectures and homework assignments from scratch, iterating on prior offerings of a related course. Designed as part of MS thesis.

Enrollment: 18 students.

Data 100: Principles and Techniques of Data Science

Instructor: [Summer 2020](#); Head TA: Fall 2020, Spring 2020, Fall 2019, Spring 2019, Fall 2018

An introduction to common data science tools and machine learning methods. Recorded lecture videos, taught live lecture and discussion sections, held office hours, created and updated several assignments, and wrote exams.

Enrollment: 330 students (as an instructor), 900-1200 students (as a head TA).

CS 198-087: Introduction to Mathematical Thinking

Instructor and Course Designer: [Spring 2019](#), Fall 2018

An introductory discrete math course with the goal of preparing students for future required coursework in discrete math. Created all lectures, notes, homeworks, quizzes, and exams from scratch. Taught as a "DeCal" (student-run course with a faculty advisor).

Enrollment: 80-90 students.

CS 70: Discrete Mathematics and Probability Theory

TA: [Summer 2019](#)

CS 375: Teaching Techniques in Computer Science

TA: [Summer 2019](#)

CS 61A: Structure and Interpretation of Computer Programs

TA: [Spring 2018](#)

Data 8: Foundations of Data Science

TA: [Fall 2017](#); Tutor: Spring 2017

Conference Publications

The Challenges of Evolving Technical Courses at Scale: Four Case Studies of Updating Large Data Science Courses

Sam Lau, Justin Eldridge, Shannon Ellis, Aaron Fraenkel, Marina Langlois, [Suraj Rampure](#), Janine Tiefenbruck, and Philip J. Guo. Learning @ Scale 2022.

Experiences Teaching a Large Upper-Division Data Science Course Remotely

[Suraj Rampure*](#), Allen Shen*, and Josh Hug. SIGCSE TS 2021.

Talks

Different Mediums for Different Audiences: A Capstone Case Study

[Suraj Rampure](#). Teaching and Evaluating Data Communication at Scale 2024 (invited).

Otter-Grader: A Lightweight Solution for Creating and Grading Jupyter Notebook Assignments

Suraj Rampure and Christopher Pyles. Jupytercon 2023.

Data 6: A New Introductory Course

Suraj Rampure. National Workshop on Data Science Education 2021.

Data 100: Principles and Techniques of Data Science

Joseph Gonzalez and **Suraj Rampure**. National Workshop on Data Science Education 2020.

Panels

A New Class of Teaching-Track Faculty: No Ph.D. Required

Kendra Walther, Adam Blank, Michael Ball, and **Suraj Rampure**. SIGCSE TS 2023, 2022.

Introduction to Computational Thinking with Data

Deborah Nolan, Lisa Yan, **Suraj Rampure**, and Vivian Carter. National Workshop on Data Science Education 2022.

Service

Institutional Committees and Leadership

2023-	Faculty Advisor, Library Educational Dataset Service, UC San Diego
2022-23	Member, Teaching Professor Search Committee, UC San Diego HDSI
2022-	Coordinator, Data Science Senior Capstone Program, UC San Diego HDSI
2021-	Member, Data Science Undergraduate Program Committee, UC San Diego HDSI
2020	Student Representative, Data Science Building Planning Meetings, UC Berkeley
2020	Member, Graduate Student Instructor Survey Analysis Committee, UC Berkeley EECS
2019-20	Member, Graduate Student Instructor Teaching Task Force, UC Berkeley EECS

Outreach

2023	Panelist, Predicting the Future with Data Science, MiraCosta College
2022-2023	Member, Data Science Pathways Working Group, UC San Diego and MiraCosta College
2022	Speaker, The Institute for Learning-Enabled Optimization at Scale's High School Field Day, UC San Diego
2022	Curriculum Advisor, Diversity in Data Science's Python Bootcamp, UC San Diego
2020	Section Leader, CS 106A Code in Place, Stanford University
2019-2020	Panelist and Moderator, EECS/CS Life from a Student Perspective, UC Berkeley
2019	REU Workshop Instructor, Center for Energy Efficient Electronics Science, UC Berkeley
2018-2019	Exhibitor, Bay Area Technology Education and Learning Support (TEALS) CS Fair
2016, 2019	Activity Leader, CS Education Day, UC Berkeley

Other

- 2023-2022 Advisor, Data Science Advisory Board, Pearson Program Committee, EAAI-22 (The Symposium on Educational Advances in Artificial Intelligence)
- 2021 Podcast Guest, UC Berkeley Data Science Education Podcast (Episode Title: The Importance of Data Science Course Staff)
- 2020-2021 Instructor, Campus-Wide Teaching Conference for First-Time Graduate Student Instructors, UC Berkeley
- 2020 Q&A Panelist and Workshop Leader, 2020 National Workshop on Data Science Education

Other Work Experience

- 2018 Software Engineering Intern, McKinsey & Co, New York, NY