Cover Letter

Suraj Rampure rampure@ucsd.edu • rampure.org

Dear Search Committee,

I am writing to apply to the Teaching Faculty position in the Computer Science and Engineering Division at the University of Michigan. I'm in my third year as a Lecturer in the Halicioğlu Data Science Institute at UC San Diego, where I've taught and significantly revamped several undergraduate courses, ranging in size from 20 to 500 students per quarter. I'm also the sole faculty coordinator of the data science capstone program, in which all 200+ senior data science undergraduates are paired with one of 40+ faculty or industry mentors for two quarters to produce a substantive group project. Across every single class I've taught at UCSD, 98.3% of students have said they'd recommend me as a professor in official course evaluations. Prior to arriving at UCSD, I was a BS and MS student at UC Berkeley advised by Josh Hug, where I served as an instructor of record for two semesters and teaching assistant for eight semesters. While at Berkeley, I received three teaching awards, including the Outstanding GSI Award as a sophomore undergraduate and the campus-wide Extraordinary Teaching in Extraordinary Times Award. I'm thrilled at the prospect of working alongside the excellent faculty in the Teaching Lab and in the CSE Division more generally.

Across the three core data science courses¹ I most frequently teach, students are exposed to Python as a tool for tabular data manipulation, web scraping and data cleaning, and statistical inference, as well both the theory and practice of various supervised learning methods. While I enjoy refining lectures and delivering them to students, most of my time is spent outside of the classroom, developing new projects, exams, and infrastructure while overseeing large teams of instructional assistants. In my role as the data science senior capstone coordinator, I solicit project descriptions from faculty mentors and **share** them with students, **maintain** standardized guidelines and deadlines across all project groups, and organize an annual **poster session**. This role requires constant communication with both faculty and students throughout the year, and as the sole instructor of record on students' transcripts, I'm the first point of contact regarding grades and interpersonal conflicts. I'm also responsible for exposing students to a common set of tools to use in their projects; since the capstone sequence is the final graduation requirement of the data science major, I have used it to identify and fill in gaps in the undergraduate curriculum.

Despite not being formally required to perform any service duties, I'm an active member in various department-level committees. As a member of the undergraduate program committee, I propose and voice my opinions on various policy changes and have become one of the faculty's main points of contact for teaching-related questions. As the point person on last year's teaching faculty search committee, I scheduled interviews for and evaluated

¹ Course descriptions, sizes, and websites can be found on my CV.

dozens of candidates. I've also spent a considerable amount of time helping broaden participation in computing; for instance, I've frequently met with instructors at MiraCosta College, a local community college, to help formalize a transfer pathway for students to our program at UCSD, and I continue to meet with other high school and community college instructors looking to adopt data science courses at their institutions.

I'm a big proponent of freely and prominently sharing education materials so that other students and educators can benefit. In addition to making all of my course websites and lecture recordings freely available and maintaining a program-wide public repository of course materials, I've written and spoke about my courses in an experience report at SIGCSE TS '21 and in talks at JupyterCon '23 and Teaching and Evaluating Data Communication at Scale '24. I've also advised students interested in pursuing teaching faculty careers without PhDs, both informally and on panels at SIGCSE TS '22 and '23.

Michigan CSE appeals to me for a variety of reasons. Michigan, like the UCs, is a large, state-serving institution. Such institutions play an important role in our society and are presented with unique challenges, like needing to teach computing at scale to students from a variety of backgrounds. I'd love the opportunity to work with MIDAS and help grow the data science program at Michigan. Not only would I enjoy teaching existing courses in introductory programming, discrete mathematics, probability, machine learning, and data mining (EECS 183, 203, 301, 445, 476, 486, and ENGR 101), but I'd love to introduce new coursework to address any program needs, such as a 200-level course covering the Python data science stack. I feel that I'm at my best as a teacher and creator when I have others to bounce ideas off of, and I appreciate that in the CSE Division I'd be able to continue to team-teach alongside other faculty and student instructors. I also value that the division has a strong contingent of teaching faculty that are active in the broader computing education community. I want to be a part of that cohort.

Thank you very much for your consideration, and I look forward to hearing from you soon.

Suraj Rampure