

I saw this precise problem in one of my undergraduate students, an extremely talented young man named Joe. As an incoming junior, Joe had just completed his required courses, and now he had to choose a major. But which one? He had a passion for architecture—he spent his weekends studying the eclectically designed buildings around Boston. He could see himself as a designer of such proud structures one day. At the same time he liked computer science, particularly the freedom and flexibility that the field offered. He could see himself with a good-paying job at an exciting company like Google. His parents wanted him to become a computer scientist—and besides, who goes to MIT to be an architect anyway?\* Still, his love of architecture was strong.

As Joe spoke, he wrung his hands in frustration. The classes he needed for majors in computer science and architecture were incompatible. For computer science, he needed Algorithms, Artificial Intelligence, Computer Systems Engineering, Circuits and Electronics, Signals and Systems, Computational Structures, and a laboratory in Software Engineering. For architecture, he needed different courses: Experiencing Architecture Studio, Foundations in the Visual Arts, Introduction to Building Technology, Introduction to Design Computing, Introduction to the History and Theory of Architecture, and a further set of architecture studios.

How could he shut the door on one career or the other? If he started taking classes in computer science, he would have a hard time switching over to architecture; and if he started in architecture, he would have an equally difficult time switching to computer science. On the other hand, if he signed up for classes in both disciplines, he would most

---

\* The architecture department at MIT is in fact very good.