

Category Theoretic Representations of Structured and Semistructured Data

Abstract

First a note: this is not a Data Science talk. (Data Science has been hot enough lately that talks with "Data" in the title are often assumed to be about Data Science, and I don't want to disappoint!) Rather, this talk is, in some respects, about the Science of Data, or better, the Science of Information – how our representations of things in the world that we want to keep track of turn out to have structures and interrelationships that can be very well captured using category theory. We look at how some of the most basic category theoretic thinking can give a competitive advantage to those who need to analyse, specify or construct real world systems. And as a lecture near the end of a course on Applied Category Theory, it aims to show you how some of what you've learned can be easily and productively applied. (But don't worry: There's no serious assumed knowledge, and we'll begin right at the beginning with a definition of "category".)