**What is "The Cloud"? Please look online for a definition. (hint: try the Amazon Web Services site). What is a Solution Stack? Can you identify any "Big Data Analytic Frameworks" for working with large volumes of data?**

I found myself answer this question recently to a slightly technologically-illiterate individual (aka my mom). In trying to explain a rather complicated interweaving of processes, storage, etc., I came up with the simplest definition I could: The cloud is when you use your computer to access someone else’s far more powerful (and faster and with more memory etc. etc.) computer.

In reality, you aren’t accessing one person’s singular computer, but rather a company’s thousands of machines, all running parallel and optimized processes, with your data stored in any number of redundant locations. Some services are free (e.g. standard Gmail), some are pay-as-you-go (e.g. Watson machine learning), and some are flat rates (e.g. additional storage in Apple’s iCloud). Anecdotally, I recently uploaded nearly 800 photos from my wedding to Google photos, and have been able to share one single link with my entire extended family, instead of 4+ GBs of photos.

A solution/software stack is the entire suite of software (or languages) you need to perform a task, operation, or goal. For example, a full stack web developer might need to know HTML, CSS and JavaScript for the front-end, and MongoDB, Python Flask or Django for the back-end.

The last course in the UCSD MicroMasters in Data Science focused on Apache Spark (using the Python API) to handle big data. The largest data collection we used was 10GB, but it was pretty neat to see how it broke up the data over clusters, and how quickly it processed it.