

StackOverflow Visual Analytics: An Interactive Visualization Aid For the StackOverflow Forum

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Motivation & Relevant Work:

- The main motivation behind this paper is to help students identify technologies that they can master so that they would be equipped with a set of skills that will be in demand when they graduate.
- StackOverflow's huge database of questions, searching any bunch of tags will give us questions asked on those tags irrespective of where or not they are related.
- We hope to help students in their career by helping them make intelligent decisions on the kind of technology that they should learn in order to be successful.

Research Questions:

1. Which technologies are trending currently? Which technologies should I be learning right now?
2. What has been the trend for famous technologies over the past ten years? Can we predict the future trending technologies?
3. If I know a particular technology, what technology should I learn next? Which technologies go hand in hand?

Methodology:

- Out of all the datapoints in the dataset, used tag(question keywords) and reputation for displaying popular tags.
- Scraped StackOverflow for various tags and their frequency for each year in the format {tag,frequency,year}. Used this data for top 10 tags for past 10 years.
- For visualizing related tags for a given tag, we scraped data in the format {tag,relatedTags,frequencyOfRelatedTags}

Data Collection:

- StackOverflow (<http://stackoverflow.com>)
- Sampled data from 2009 to 2018 for tags and frequency.

Findings:

- The most popular Java based technologies are Android and Spring.
- The most trending technologies over the past 10 years have been Java, Android, iOS, Python and Javascript
- The highest change in trends over the past ten years have been in Python and Javascript.

