JobViz: User Interface for Visualization of Majors & Jobs

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University (and industry) career search portals and web-based job search engines allow users to search on many items (e.g., education, location, level, etc.) and then present a text based list of potential job opportunities. University career portals are not as conducive to exploration by job and career searchers as they could be and make it difficult for students to understand the relationship between jobs and majors.

Researchers at Rutgers University have created a novel visual exploration approach called JobViz which provides an improved visual user interface for career and job search.

The JobViz visual interface includes:

- **A radial layout** that displays connections between majors, and enables visualization of both major-job connections and related skills. The center of the radial displays major - job connection lines and a tag cloud. The circumference of the wheel has separate sections one for majors and another for jobs. Categories group jobs into industry sectors (e.g., Accounting, etc.) and into career fields.

- **Connection Curves** that shows the relationship between a major and job.

- **A Tag Cloud** of keywords that summarize the essential keywords in a job posting representing a collection of skills, and industry knowledge. All the terms in the tag cloud, as well as the career fields and position types on the outer ring of the radial layout link to actual job postings.
Use

The JobViz interface enables students to see the relationship between jobs and majors, and to compare different majors, employment and career options. The interface allows users to navigate intuitively and focus on jobs of interest that depend on a specific major, technical skill, class type, or type of job.

Advantages:

• Provides a unique and intuitive visual interface for exploration of career and employment databases.
• Allows students (and professors) to explore job posting data in a holistic and education-centric way.
• Offers a better way to explore job search opportunities based on majors and careers
• Assists students having difficulty selecting a major to see employment opportunities related to specific majors
• Benefits educators and educational institutions providing career counseling services such as high school guidance counselors, and college/university career services organizations.

Relevant Markets:

• Educational Career Counseling: For use by college and university career service organizations and by students

• University Learning Platforms: New or expanded career search/counseling features for learning platforms.

• Career/job search engines: Enables a Visual Search ability for career/job search engines that displays jobs based on college majors; and has the potential to support visual searching based on different search criteria.

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Intellectual Property & Development Status:
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