

Visualization of Hierarchical Multidimensional Career Pathway Data

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Categories:

- Computer Technology

Keywords:

- Career Pathway
- Computer Technology
- Hierarchical Flow Data
- Information Visualization

Researchers at Purdue University have developed CareerVis, a visualization technology to help high school and early college students decide their college major and career pathway. This technology provides an easy way to compare both college majors and occupations. In demonstrations for each major at Purdue, the researchers created a description of the major and a display of student data (i.e. percentage of international/domestic students, GPA needed to enroll, percentage of minority students, and average SAT verbal and quantitative scores) as well as the potential career outcomes (i.e. most common jobs and the percentage of students landing each of them, average salaries, hours of work per week, and automation sensitivity). Students can also find the most common majors for each occupation. With data for hundreds of majors and thousands of occupations, this system will help young students find college majors and career pathways that are suitable for their interests, abilities, and lifelong goals.

Related Publication: M. Li et al., "CareerVis: Hierarchical Visualization of Career Pathway Data," in IEEE Computer Graphics and Applications, vol. 38, no. 6, pp. 96-105, 1 Nov.-Dec. 2018, doi: 10.1109/MCG.2018.2874514.

Technology Validation: In the researchers' iterative design process, 90% of users were more satisfied with the final design than earlier designs. Additionally, in a survey with 68 first-year students at Purdue who used CareerVis, the compatibility of participants' selected majors and occupations increased from 79% to 91%.

Advantages

- Simple and intuitive user interface
- Smartphone- and tablet-friendly

Applications

- College major selection and career decision making

People:

- Chen, Yingjie (Project leader)

Intellectual Property:**Contact OTC:**

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