## Using Dynamic Bayesian Networks to Characterize and Predict Job Placement

Authors: Xupin Zhang, Maria Caterina Bramati, Enrest Fokoue

**Abstract :** Understanding the career placement of graduates from the university is crucial for both the qualities of education and ultimate satisfaction of students. In this research, we adapt the capabilities of dynamic Bayesian networks to characterize and predict students' job placement using data from various universities. We also provide elements of the estimation of the indicator (score) of the strength of the network. The research focuses on overall findings as well as specific student groups including international and STEM students and their insight on the career path and what changes need to be made. The derived Bayesian network has the potential to be used as a tool for simulating the career path for students and ultimately helps universities in both academic advising and career counseling.

**Keywords:** dynamic bayesian networks, indicator estimation, job placement, social networks **Conference Title:** ICCSS 2017: International Conference on Computational Social Science

Conference Location: Amsterdam, Netherlands

Conference Dates: May 14-15, 2017