Article #1

Graph Mining to Characterize Competition for Employment (2017)

Author(s)
Toulis, A., Golab, L.

Journal
Proceedings of the 2nd International Workshop on Network Data Analytics

Source
ACM Digital Library via WIL Research Portal

Purpose: To explore a novel application of graph analytics to characterize competition in a large job market.

Methodology: Graph mining techniques were used to analyze competition among communities of prospective employees and employers, using Waterloo co-op data.

Key findings: The graph mining methodology proposed was effective in describing the level of competition between co-op job applicants, but also described the high level of competition among employers for top talent.

Practitioner’s Thoughts by Robert Craig (Manager, Data Analytics, Reporting and Research)

Q: What insights did you gain from reading this article that were useful to you?
A: As someone new to the Co-operative Education group, this article provided me with a deeper look into the competitive process that brings together our students and employers at Waterloo. I learned that while UW students are applying to roles in dedicated industries like engineering, finance or IT, there is also significant overlap and competition across programs, particularly for the highest-profile roles. The article also outlines how competitive the hiring process can be amongst our employers, with the largest firms dedicating significant resources to attract the top talent. However, many small businesses and start-ups may be missing out when trying to compete head-to-head with these large companies.

Q: How might the results of this work impact how you do your job?
A: As we begin to define the role of data analytics in Co-operative Education, Toulis and Golab’s work provides a great example of the methodologies we want to explore going forward. The article has stoked my interest in learning more about the competitive hiring process that is unique to co-op at Waterloo, and how we can further use data to understand the unique relationships between our student and employers.
WIL Research Portal is now live!

Launched in early August, the Work-integrated Learning Research Portal features University of Waterloo and international research on work-integrated learning and co-operative education. We will continue to add new features and grow our library of resources and articles for the co-op community. A big thanks to Colin Bell’s team at IST and our supportive WIL colleagues for helping us make this happen!

Features

› Search for articles and research
› Suggest a resource not already in the database
› Explore work-integrated learning resource statistics and trends

Feedback

With help from IST, we are dedicated to improving your experience with the WIL Research Portal. If you have any feedback or suggestions for improvement, we want to hear from you by submitting a feedback form or emailing us at watcace@uwaterloo.ca.

Upcoming seminar

Sustainable Partnerships & Employer Perspectives in Work-integrated Learning

Speakers:
› Judene Pretti (Director, WatCACE)
› Dave Drewery (Research Coordinator, WatCACE)

Date: Wednesday, October 11, 2017
Time: 3:00 PM to 4:00 PM EST
Location: Tatham Centre (TC) 2218 at the University of Waterloo

Please visit the event page for more details.

Registration
If you are interested in attending this seminar, please register online.

HOW CAN YOU BE INVOLVED?

Contribute
If you have suggestions for articles or would like to contribute to the practitioner viewpoint on future issues, we’d love to hear from you at watcace@uwaterloo.ca.

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