



WOMEN IN DATA SCIENCE
GREATER LAFAYETTE @PURDUE

Poster Presentations



Broadening Participation in the Science of Information

Research Mentor or Principal Investigator - Brent T. Ladd
Additional Author - Bob Brown

The Center for Science of Information at Purdue Discovery Park has used training in data science with an integrated Information Frontiers education and diversity national program to successfully broaden participation at undergraduate and graduate levels. Outcomes from eight years of the program have revealed ten characteristics of education and diversity programming that lead to broadening participation across STEM disciplines in the context of data science and information science domains. Activities include mentoring, leadership roles, team science collaborations, unconscious bias training, networking, STEM outreach, and recruitment strategy. The results and supporting program characteristics will be presented.



Finding characteristics of exceptional breast cancer subpopulations using subgroup mining and statistical test

Research Mentor or Principal Investigator - Jin S. Yoo

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Breast cancer is one of the most prevalent types of cancer among women. With increased emphasis towards cancer related research, many data-driven research works have been conducted for classifying cancer diagnosis, survival, or recurrence. Unlike existing literature, this study aims to discover interesting subgroup patterns of long-term and short-term survival from the breast cancer incidence data of the SEER (Surveillance, Epidemiology, and End Results) Program. We present a rule induction method for subgroup discovery, which can effectively find subgroup patterns by focusing on local exceptionality detection in contrast to global models. The significance of subgroup patterns discovered is examined with statistical tests. Furthermore the characteristics of two exceptional high and low survival groups are compared by examining the descriptive statistics of prognostic factors in each group. The case study's results show that the proposed subgroup mining and statistical test approach is a promising technique for clinical and medical data analytics.

Transaction Fraud detection

Research Mentor or Principal Investigator
Professor Mathew Lanham

Presenter – Deepika Jindal



Other Poster Presenters

Thuy Nguyen (Purdue)

Amber Johnson (Purdue)

Erick Bravo (Ivy Tech)

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