Şirag Erkol

CONTACT Information Indiana University

School of Informatics, Computing, and Engineering Center for Complex Networks and Systems Research

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EDUCATION

Indiana University, Bloomington, IN

Ph.D. in Informatics, Complex Networks and Systems track

August 2017 – present

- Advisor: Assoc. Prof. Filippo Radicchi
- Minor: Computer Science

Boğaziçi University, Istanbul, Turkey

M.S. in Industrial Engineering

September 2014 – August 2016

- Advisor: Assoc. Prof. Gönenç Yücel
- Thesis Title: Influence Maximization Based on Partial Network Structure Information: A Comparative Analysis on Seed Selection Heuristics

B.S. in Industrial Engineering

September 2010 – June 2014

• Graduation Project: Analyzing Parking Stand Requirements for Istanbul Ataturk Airport

Robert College, Istanbul, Turkey

September 2005 – June 2010

ACADEMIC EXPERIENCE Indiana University, Bloomington, IN

Research & Teaching Assistant

August 2017 – present

• Assisted courses:

INFO-I 369 - Performance Analytics (Spring 2020, Spring 2021)

Boğaziçi University, Istanbul, Turkey

Research & Teaching Assistant

October 2014 – August 2017

- Assisted courses:
 - IE 312 Facilities Design and Planning (Fall 2014, Fall 2015, Fall 2016)
 - IE 350 Systems Science and Engineering (Spring 2015, Spring 2016)
 - IE 484 Simulation Gaming and Decision Experimentation (Fall 2016)
 - IE 48F Agent-Based Modeling and Simulation (Spring 2015, Spring 2016, Spring 2017)
 - IE 550 Dynamics of Socio-Economic Systems (Fall 2015)
- Assistant at Socio-Economic System Dynamics (SESDYN) Laboratory

Work Experience Pacific Northwest National Laboratory, Richland, WA

June 2021 – August 2021

Ph.D. Intern

I worked on multiple projects on influence maximization. I designed heuristic methods for the influence maximization problem on static networks, and analyzed their efficiency on small and large scale networks. I worked on the adaptive influence maximization problem in temporal networks, designing methods to increase the effect size of seed sets.

Publications

Published:

Who is the best coach of all time? A network-based assessment of the career performance of professional sports coaches

Ş. Erkol and F. Radicchi, *Journal of Complex Networks*, 9, cnab012 (2021) [DOI] [arXiv] [Website]

Influence maximization on temporal networks

Ş. Erkol, D. Mazzilli and F. Radicchi, *Physical Review E*, 102, 042307 (2020) [DOI] [arXiv]

Systematic comparison between methods for the detection of influential spreaders in complex networks **Ş. Erkol**, C. Castellano and F. Radicchi, *Scientific Reports*, 9, 15095 (2019) [DOI] [arXiv]

Influence maximization in noisy networks

 $\S.$ Erkol, A. Faqeeh and F. Radicchi, $EPL,\,123,\,58007$ (2018) [DOI] [arXiv]

Influence Maximization Based on Partial Network Structure Information: A Comparative Analysis on Seed Selection Heuristics

 $\P.$ Erkol and G. Yücel, International Journal of Modern Physics C, 28, 1750122 (2017) [DOI]

Presentations

Talks:

Influence maximization on temporal networks, Networks2021, Online

July 2021

Influence maximization on temporal networks, University of Limerick,

March 2021

Ireland, Online

Posters:

Systematic comparison between methods for the detection of influential

September 2020

spreaders in complex networks, NetSci, Online

Influence maximization in noisy networks, NetSci, Burlington, VT, USA

May 2019

COMMUNITY SERVICE

Journal Reviewer: Chaos, Solitons & Fractals; Expert Systems with Applications; Pattern Recognition

Journal Subreviewer: PLoS One

Computer

Frequent user of Python, LATEX

Skills

Experierce in Django, NetLogo, HTML, CSS Familiar with MySQL, C, R, Git, Stella

Languages

English (fluent), Turkish (native), Armenian (native), French (beginner), Spanish (beginner)

Last updated: August 25, 2021