Todd Bodnar

CONTACT
INFORMATION

Voice: (###) ###-####
E-mail: meme@psu∗edu

RESEARCH
INTERESTS

Social networks, computational modeling, game theory, data mining

DEGREES

Pennsylvania State University, State College, Pennsylvania USA

PhD, Biology, 2016 (Expected)
Advisor: Marcel Salathé

Pennsylvania State University

B.S., Computer Science, May, 2012
Junior/Senior GPA 3.90
Minor in Mathematics

ACADEMIC
RELATED
EXPERIENCE

Research with the Salathé Group
  PhD advisor

Grader for Cmpsc 464 (January 2012 - April 2012)
  Graded homework for the senior level class: "Introduction to the Theory of Computation"
  Topics covered include automata, Turing machines and complexity.

Undergraduate research with Dr. Eric Charles
  Penn State psychology department.
  Developed models for modified prisoner's dilemma games.
  Developed program for running NetLogo simulations on multiple computers.

PUBLICATIONS

3. **Todd Bodnar** & Marcel Salathé. *Validating Models for Disease Detection Using Twitter* WWW 2013 Companion, May 13-17, 2013, Rio de Janeiro, Brazil. (in press)

2. Marcel Salathé, Linus Bengtsson, **Todd J. Bodnar**, Devon D. Brewer, John S. Brownstein, Caroline Buckee, Ellsworth M. Campbell, Ciro Cattuto, Shashank Khandelwal, Patricia L. Mabry, Alessandro Vespignani. *Digital Epidemiology* Plos Computational Biology, 2012

1. **Todd Bodnar** & Marcel Salathé. *Governing the Global Commons with Local Institutions.* PloS One, 2012

PRESENTATIONS

2. Todd Bodnar. *Processing Big-Data for Cheap through Amazon's Elastic Map Reduce* Hacking Science Seminar, 2013 (60 minute talk)

1. Todd Bodnar, Orhan Kislal, Ying Sun, Hui Yang,Marcel Salathé, Conrad Tucker. *Webs, Clouds and Tweets: Using Social Media to Study the Spatial Dynamics of Influenza.* Center for Integrated Healthcare Delivery Systems, 2012 (Poster)

SOFTWARE

Crowdbreaks
  Online disease surveillance system using social media.
  Worked on backend, developed system for fast processing of large geospatial data sets.

COMPUTER SKILLS

- Cluster Computing / Hadoop
- Web based psychological game development on Amazon Mechanical Turk
- General software development / programing
- LaTeX