

NAME

University of Pennsylvania
Dept. of Electrical & Systems Engineering
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RESEARCH INTERESTS

Modeling, analysis and design of multi-agent systems using distributed optimization and game theory. Topics of interest include algorithmic and asymptotic behavior of equilibrium play in Bayesian games over networks, learning in games over networks, distributed network optimization, social networks, demand response management in smart grids.

EDUCATION

University of Pennsylvania Philadelphia, PA
Ph. D. Candidate Electrical & Systems Engineering Expected: January 20XX
Thesis: "TITLE"
Advisor: NAME, PhD
Committee Members: Name (chair), Name, Name

NAME University Istanbul, Turkey
M. Sc. in Industrial Engineering September 20XX
Thesis: "TITLE"
Advisor: Prof. NAME

Istanbul Technical University Istanbul, Turkey
B. Sc. in Control Engineering June 20XX
Thesis: "TITLE"
Advisor: Prof. NAME

RESEARCH EXPERIENCE

University of Pennsylvania Philadelphia, PA
Research Assistant (with Prof. NAME) September 20XX-present

- Demand response management of heterogeneous rational consumers in smart grids. Proposed a real time pricing strategy that incentivizes users to adjust consumption based on renewable source generation and characterized behavior with various information exchange models.
- Repeated non-cooperative Bayesian games over networks. Characterized asymptotic behavior of equilibrium play and designed a local game filter to compute equilibrium actions and propagate beliefs.
- Network optimization with heuristic rational agents. Individuals follow a heuristic akin to stochastic coordinate descent that is on the average optimal and achieve near global optimality with exponentially decaying probability of excursions away from optimality.

University of Pennsylvania Philadelphia, PA
Research Assistant (with Prof. NAME) September 20XX-September 20XX
Ackoff Collaboratory for Advancement of Systems Approach (ACASA)

- Validation of holistic intractable agent based models. Developed a framework to compare socio-cognitive agent models in varying contexts based on experimental data.

- Analysis tools for a Python based modeling framework. Designed and implemented a Q-learning algorithm based on model data for policy analysis in complex socio-cognitive models. Worked together with the research staff to develop a sensitivity analysis tool.

Technische Universiteit Eindhoven

Eindhoven, Netherlands

Exchange Student

February 20XX- July 20XX

- A PTAS for the Multiple Depot Vehicle Routing Problem (with Name, Name, Name, and Name).

University NAME

Istanbul, Turkey

Research Assistant (with Prof. Yaman Barlas)

September 2006- August 2008

Socio-Economic Systems Dynamics (SESDYN) group

- Genetic algorithms for policy design in system dynamics. Compared performance of genetic algorithms in a parametric search to meet multiple goals in dynamic systems.

Istanbul Technical University

Istanbul, Turkey

Graduation Project

September 20XX- June 20XX

- Modeling human behavior in a stock management game experiment. Developed a fuzzy logic model to mimic decision making behavior of individuals based on experimental data.

TEACHING EXPERIENCE

Senior design project mentor, Univ. of Pennsylvania

Fall - Spring 20XX

- Supervised a senior design team of four undergraduate students

Teaching assistant for "Systems Methodology", Univ. of Pennsylvania

Spring 20XX

- Office hours, grading, lab lectures

Teaching assistant for "Agent Based Modeling", Univ. of Pennsylvania

Fall 20XX

- Office hours, grading, lab lectures and project instructor

Teaching assistant for "Agent Based Modeling", Univ. of Pennsylvania

Fall 2009

- Office hours, grading, lab lectures and project instructor

ACADEMIC HONORS

- Erasmus Exchange Program Student at Technische Universiteit Eindhoven (February 20XX - July 20XX)
- Fellowship for Graduate Students by The Scientific and Technological Research Council of Turkey (TUBITAK), (September 20XX - August 20XX)
- Ranked in top 300 (among 100,000 students) in the National Graduate Entrance Exam (LES) (GRE like), 20XX

PROFESSIONAL AFFILIATIONS AND REVIEW ACTIVITIES

- IEEE Student Member, IEEE Signal Processing Society Member.
- Reviewer for IEEE Transactions on Signal Processing, IEEE Transactions on Automatic Control, IEEE Journal of Selected Topics in Signal Processing, Operations Research.

- Reviewer for Int. Conf. Acoustics, Speech, Signal Process., IEEE Workshop on Signal Process. Advances in Wireless Com., IEEE Conf. Decision and Control, IEEE Global Conf. on Signal and Inf. Process., IEEE Int. Conf. Distributed Computing in Sensor Systems.

INDUSTRY EXPERIENCE

NEC Laboratories America Inc.

Energy Department Research Intern

Cupertino, CA
May 20XX - August 20XX

- Designed and implemented a distributed energy management system.

PUBLICATIONS

Journal papers (appeared/under review/in preparation)

1. NAME, H. Name, and A. Name, "DeTITLE", (in preparation), September 20XX.
2. NAME, H. Name, and A. Name, "TITLE", (R&R IEEE Trans. on Smart Grid), July 20XX.
3. NAME, P. Name, A. Name and A. Name, "TITLE", *IEEE Trans. Signal Process.*, vol. ##, no. #, pp. 250-274, May 20XX.

Conference papers

1. NAME, H. Name, and A. Name, "TITLE," *Int. Conf. Acoustics Speech Signal Process. (ICASSP)*, Firenze Italy, May 4-9 20XX.
2. NAME, P. Name, A. Name and A. Name, "TITLE," *Int. Conf. Acoustics Speech Signal Process. (ICASSP)*, (invited), Firenze Italy, May 4-9 20XX.

PRESENTATIONS

- Power and Energy Systems Group at UIUC, *Bayesian Network Games Approach to Demand Response Management in Smart Grids*, Urbana-Champaign, IL, May 15, 20XX.
- Princeton University, *Bayesian Network Games*, Princeton, NJ, April 22, 20XX.
- College of Engineering Graduate Seminar at Koc, University, *Bayesian Network Games*, Istanbul, Turkey, December 26, 20XX.
- CS-EE-IE graduate seminar at Sabanci University, *Bayesian Network Games*, Istanbul, Turkey, December 18, 20XX.
- Department of Control Engineering graduate seminar at Istanbul Technical University, *Bayesian Network Games*, Istanbul, Turkey, December 17, 20XX.
- Asilomar Conf. on Signals, Systems and Computers, *Optimal solutions to distributed finite horizon stochastic team problems*, Pacific Grove, CA, 20XX.
- European Signal Process. Conf., *Distributed filters for Bayesian network games*, Marrakech, Morocco, 20XX.
- Allerton Conf. on Communication, Control and Computing, *Learning in Linear Games over Networks*, Monticello, Illinois, 20XX.
- Asilomar Conf. on Signals, Systems and Computers, *Network Optimization with heuristic rational agents*, Pacific Grove, CA, 20XX.
- Penn Seminar on Communications and Networking, *Network Optimization with heuristic rational agents*, Philadelphia, PA, October 25, 20XX.