

DIMITRIOS ANTOS

SCHOOL OF ENGINEERING AND APPLIED SCIENCES, HARVARD UNIVERSITY

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May 2012

Education

Harvard University

Ph.D., Computer Science

Advisors: Prof. Barbara Grosz, Prof. Avi Pfeffer

Dissertation: *Deploying Affect-Inspired Mechanisms to Enhance Agent Decision-Making and Communication*

Cambridge, MA

May 2012

Athens University of Economics and Business

M.S., Computer Science

Advisors: Prof. George D. Stamoulis, Prof. Costas Courcoubetis

Thesis: *Economic Aspects of Software Development using Service-Oriented Architectures*

Athens, Greece

2007

Aristotelian University

B.S., Computer Science

Thessaloniki, Greece

2005

Research Interests

Artificial intelligence, Multi-agent systems, Affective computing, Decision-making, Game theory, Bounded rationality, Social computing, Human-computer interaction.

Awards & Fellowships

- Siebel Scholar, class of 2012 – awarded annually for academic excellence and demonstrated leadership to 85 top students from the world's leading graduate schools.
- John A. and Elizabeth S. Armstrong Fellowship, 2009.
- Harvard Mind, Brain and Behavior (MBB) graduate student awards, 2008, 2010.
- Scholarships for academic excellence, Athens University of Economics and Business, 2006-2007.

Research Internship Experience

Institute for Creative Technologies
University of Southern California

Los Angeles, CA

Visiting Research Assistant, May–August 2011
Advisors: Prof. Jonathan Gratch

Studied the computational benefits of the communicative aspect of emotions. Demonstrated that heterogeneous populations of agents in domains of high uncertainty achieve improved inference capabilities and better performance when they exchange signals that semantically resemble human emotion expressions.

Institute for Creative Technologies
University of Southern California

Los Angeles, CA

Visiting Research Assistant, June–August 2010
Advisors: Prof. Jonathan Gratch

Investigated empirically the effects of emotion expression by computer agents on people's perceptions of the agents' trustworthiness in a computer-human negotiation context.

Athens University of Economics & Business

Athens, Greece

Research Assistant, June–July 2007
Advisors: Prof. Costas Courcoubetis

Industry Experience

Software Architect, 11/2001 – 05/2005

Thessaloniki, Greece

Altanet S.A. — Tasks: database management, web development.

Teaching & Advising Experience

CS 179: DESIGN OF USABLE INTERACTIVE SYSTEMS

Spring '10

- Undergraduate course at Harvard University, taught by Prof. Krzysztof Gajos.
- Enrollment: 36
- Student feedback: 4.1 out of 5.0.
- Responsible for preparing and grading homework, student advising. Organized a weekly lab for database design and iPhone web application development. Held weekly “studios” in which groups of students presented their project progress and challenged their peers' assumptions and methodologies.

CS 285: MULTI-AGENT SYSTEMS

Spring '09; Fall '10

- Graduate course at Harvard University, taught by Prof. David Parkes.
- Enrollment: 20, 31 (respectively)
- Student feedback: 4.4, 4.3 (respectively) out of 5.0.
- Responsible for preparing and grading homework, student advising, sections, lecturing.

CS 286R: SOCIAL COMPUTING

Fall '08

- Graduate course at Harvard University, taught by Prof. Yiling Chen.
- Enrollment: 14
- Student feedback: 4.2 out of 5.0
- Responsible for preparing and grading homework, student advising.

Leadership

ORGANIZER OF HARVARD SEAS PROFESSIONAL DEVELOPMENT SEMINAR

Spring 2011

- Coordinated weekly activities related to funding, job search, and other issues of academic and professional development.

MIND, BRAIN AND BEHAVIOR BOARD REPRESENTATIVE FROM COMPUTER SCIENCE 2010-2011

- Coordinated the graduate student branch of the Harvard *Mind, Brain and Behavior* group. Responsible for inviting speakers, organizing talks and holding discussions.

TUTORIAL ON HUMAN-COMPUTER DECISION-MAKING

May 2010

- Planned for and led a half-day tutorial at the International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) in Toronto, Canada. Attended by graduate students, professionals and members of funding agencies.

COORDINATOR OF HARVARD AI RESEARCH GROUP

2009-2010

- Responsible for organizing weekly talks, inviting speakers, community building.

MIND, BRAIN AND BEHAVIOR UNDERGRADUATE PANEL HOST

May '09

- Host and discussion coordinator for seniors in neurobiology, evolutionary biology, computer science, linguistics and history of science. The goal of the panel was to engage students in establishing deeper connections among disciplines.

Other Research Activities

Reviewed for conferences: UAI 2010, 2011, 2012; AAAI 2010; AAMAS 2011; IJCAI 2009, 2011.

Member of the Intelligent User Interfaces research group at Harvard, led by Prof. Krzysztof Gajos.

Presented a poster at the Radcliffe Symposium on Human Decision-Making, Spring 2010.

Participated in the 'Market of Minds' reading group at Harvard, led by Prof. David Parkes, 2010.

Professional Memberships

IEEE, AAAI, ACM, Humaine Society for Research on Emotions.

Publications

A. PEER-REVIEWED CONFERENCE PROCEEDINGS

Celso De Melo, Peter Carnevale, Stephen Read, **Dimitrios Antos** & Jonathan Gratch, *Bayesian Model of the Social Effects of Emotion in Decision-Making in Multiagent Systems*, in proceedings of the conference on Autonomous and Artificial Multi-Agent Systems (AAMAS), Valencia, Spain, Jun. 2012.

Celso De Melo, Jonathan Gratch, **Dimitrios Antos** & Peter Carnevale, *A Computer Model of the Interpersonal Effect of Emotion Displayed in Social Dilemmas*, in proceedings of the conference on Affective Computing and Intelligent Interaction (ACII), Memphis, TN, Oct. 2011.

Dimitrios Antos, Celso De Melo, Jonathan Gratch & Barbara Grosz, *The Influence of Emotion Expressions in Perceptions of Trustworthiness*, in proceedings of the conference of the American Association of Artificial Intelligence (AAAI), San Francisco, CA, Aug. 2011.

Dimitrios Antos & Avi Pfeffer, *Using Emotions to Enhance Decision-Making*, in proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, 2011.

Dimitrios Antos & Avi Pfeffer, *Reasoning Patterns in Bayesian Games*, extended abstract, in proceedings of the conference on Autonomous and Artificial Multi-Agent Systems (AAMAS), Taipei, Taiwan, May 2011.

Dimitrios Antos & Avi Pfeffer, *Representing Bayesian Games with Non-Common Priors*, extended abstract, in proceedings of the conference on Autonomous and Artificial Multi-Agent Systems (AAMAS), Toronto, Ontario, Canada, May 2010.

Dimitrios Antos & Avi Pfeffer, *Using Reasoning Patterns to Help Humans Solve Complex Games*, in proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), Pasadena, CA, Jul. 2009.

Dimitrios Antos & Avi Pfeffer, *Simplifying Games Using Reasoning Patterns*, student abstract, in proceedings of the conference of the American Association of Artificial Intelligence (AAAI), Chicago, IL, Jul. 2008.

Dimitrios Antos & Avi Pfeffer, *Identifying Reasoning Patterns in Games*, student abstract, in proceedings of the conference on Uncertainty in Artificial Intelligence (UAI), Helsinki, Finland, Jun. 2008.

B. JOURNAL PUBLICATIONS

Dimitrios Antos, Barbara Grosz, Avi Pfeffer & Jonathan Gratch, *Computational Analogues of Emotion to Enhance Agent Decision-Making and Communication*, in preparation.

Dimitrios Antos, Costas Courcoubetis & George D. Stamoulis, *Economic aspects of building software for service-oriented architectures*, in *Concurrency and Computation: Practice and Experience*, 22(14): 2012-2035, (2010).

C. DOCTORAL DISSERTATION

Dimitrios Antos, *EDeploying Affect-Inspired Mechanisms to Enhance Agent Decision-Making and Communication*, Harvard University, Cambridge, MA, May 2012.

References

BARBARA J. GROSZ grosz@eecs.harvard.edu
Harvard University, Gordon McKay Professor of Computer Science

AVI J. PFEFFER apfeffer@cra.com
Charles River Analytics, Principal Scientist

JONATHAN GRATCH gratch@ict.usc.edu
Institute for Creative Technologies, University of Southern California,
Research Associate Professor & Associate Director for Virtual Human Research

DAVID C. PARKES parkes@eecs.harvard.edu
Harvard University, Gordon McKay Professor of Computer Science

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Harvard University, Assistant Professor of Computer Science