JACOMO CORBO

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EDUCATION

2002 - June 2008 **Harvard University** Cambridge, MA, USA
School of Engineering and Applied Sciences
Ph.D. in Computer Science
Thesis: "Multiparty Large-Scale Network Formation: Economic Models and Mechanisms"
Advisor: Professor David C. Parkes, *parkes@eecs.harvard.edu*
S.M. in Applied Mathematics, 2003

1998 - 2002 **McGill University** Montreal, QC, Canada
Dept. of Electrical and Computer Engineering
B.Eng. (Honours) in Electrical Engineering
Graduated *summa cum laude*
Thesis: "Hierarchical Supervisory Control of Multi-Agent Systems by Product Synthesis"
Advisor: Professor Peter C. Caines, *peterc@cim.mcgill.ca*
Minor in Philosophy

RESEARCH INTERESTS

Areas
- networks, complex systems
- decentralized markets, organizational structure
- competitive strategy, strategy formulation, portfolio investment

Industries Internet, IT, high technology, aerospace, management consulting

RESEARCH EXPERIENCE

2002 - 2008 **Harvard University** Cambridge, MA, USA
Research Assistant
Includes Ph.D. research, Ph.D. and Masters level coursework, research projects, aiding in the writing of grants, reviewing of papers.

Jan 06 – Mar 08 **ING Renault F1 Team Limited** Enstone, Oxfordshire, UK
Chief Strategist
- Responsible for the preparation and real-time execution of race strategies, competitor and risk analysis, strategic analysis techniques, and led the design and development of real-time software.
- **[Strategy]** Designed novel strategy optimization and risk assessment algorithms based on techniques from computational game theory, cumulative prospect theory, real options analysis.
- **[Portfolio Management]** Developed algorithms for R&D portfolio selection using game-theoretic methods for **The Boeing Company**'s advanced R&D unit, *Phantom Works*.
- Initiated and heading an extensive strategic data mining project, overseeing a small team for the development of business logic and software infrastructure.
- Responsible for critical real-time strategic decisions, traveled to 29 races in 18 countries since 2006, working closely with both race engineers at track and engineers in the UK, winner of 2006 FIA Constructors' and Drivers' Championships.

Jun - Aug 02 **Queens' University** Belfast, UK
Summer Research Intern
Derived and implemented general predictive controller and neural network-based plant model of turbo-generator system (in C).

May - Aug 01 **Robert BOSCH GmbH** Stuttgart, Germany
Research Intern
Led the design and implementation of a steer-by-wire simulator, worked closely with control area network developers, managed the project's development budget.

OTHER WORK EXPERIENCE

Jun 97 - May 01 **WEBHedz Inc.** Montreal, QC, Canada
Founder of Internet start-up specializing in affordable online database solutions.

TEACHING EXPERIENCE

Harvard University Cambridge, MA, USA
Teaching Assistant
Responsible for assigning and grading homework, creating and supervising projects, holding office hours, weekly tutorial sections, and occasional lectures. Excellent student evaluations available upon request.

Spring 2007 CS 286r: Graduate Seminar on Electronic Market Design
Students rated overall: 4.6 / 5.0

Fall 2004, 2005 CS 182: Artificial Intelligence: Reasoning and Planning
Students rated overall: 4.7 / 5.0 (2005), 4.5 / 5.0 (2004)

Spring 2004, 2005 AM 115: Mathematical Modeling
Students rated overall: 4.8 / 5.0 (2005), 4.6 / 5.0 (2004)

HONOURS AND AWARDS

2005	Altran Engineering Academy Finalist, Altran Consulting, *2nd from 493 entries in 26 countries*
2004 - 2007	FCAR NATEQ Doctoral Scholarship, Harvard University
2002 - 2004	FCAR NATEQ Master's Scholarship, Harvard University
2004	Cambridge Science Foundation Graduate Fellowship, Harvard University
2002	NSERC Doctoral Scholarship, Harvard University, *declined*
2002 - present	James Mills Pierce Scholarship, Harvard University
2000, 2001	NSERC Undergraduate Research Award, McGill University, *declined in 2001*
1998 - 2002	J.W. McConnell Full Scholarship, McGill University
1996	Canadian Governor-General's Medal, Loyola College

LANGUAGES

Fluent in English, French, Italian, conversationally competent and literate in Spanish.

ACTIVITIES

2004 – present **Dudley House Tigers, Harvard University** Cambridge, MA, USA
President
Founded graduate student adventure racing team, responsible for organizing international race calendar and sponsor search, competed in 8 of 15 races since 2005

2002 - 2005 **French Club (HUFC), Harvard University** Cambridge, MA, USA
Secretary General

JOURNAL PUBLICATIONS

J. Corbo, A. Calvó-Armengol, D. C. Parkes. "A Study of the Nash Equilibrium in contribution games for peer-to-peer networks," In *ACM SIGOPS Operating Systems Review* (40) 3, July 2006, pp.61-66.

CONFERENCE PROCEEDINGS

J. Corbo, A. Calvó-Armengol, D. C. Parkes. "The Importance of Network Topology in Local Contribution Games," In X. Deng and F. Chung Graham, editors, *Proceedings of the International Workshop on Internet and Network Economics (WINE)*, Lecture Notes in Computer Science (LNCS). Springer-Verlag, December 2007.

J. Corbo, S. Jain, M. Mitzenmacher, D. C. Parkes. "An Economically Principled Generative Model of AS Graph Connectivity," In *Proceedings of the International Joint Workshop on The Economics of Networked Systems and Incentive-Based Computing*, June 2007.

J. Corbo, D. C. Parkes. "The Price of Selfish Behavior in Bilateral Network Formation," In *Proceedings of the 24th ACM Symposium on Principles of Distributed Computing (PODC)*, Las Vegas, Nevada, USA, pp. 99-107, July 2005.

I. Romanovski, **J. Corbo**, P. Caines. "MAP View: An Analysis Tool for Multi-Agent Product Synthesized Hierarchical Supervisory Control," In *Proceedings of the American Control Conference (ACC)*, Denver, Colorado, USA, 2003.

BOOK CHAPTERS

J. Corbo, T. Petermann. "Selfish Routing and Peering in the Internet," In *Proceedings of the Santa Fe Institute School of Complexity Series*, vol. 14, pp. 141-147, Santa Fe, New Mexico, USA, August 2004.

WORKING PAPERS

J. Corbo, S. Jain, M. Mitzenmacher, D. C. Parkes. "An Economically-Principled Model of the Internet Topology," Harvard EECS Technical Report Series, TR-17-07, December 2007.

J. Corbo, A. Calvó-Armengol, D. C. Parkes. "Network Effects in Local Contribution Economies: Identification and Regulation," UAB Working Paper Series 413, Universitat Autonoma de Barcelona, October 2007.

J. Corbo, A. Calvó-Armengol. "Investment Decisions in the Creation of Synergies: Lessons from Socio-Economic Networks," UAB Working Paper Series 382, Universitat Autonoma de Barcelona, October 2007.

INVITED TALKS

"A Strategic Analysis of Strictly Competitive Games," *Applied Mathematics Seminar Series*, Oxford University, August 2007.

"A Study of the Nash Equilibrium in contribution games for peer-to-peer network," Universitat Autònoma de Barcelona, November 2006.

"The Price of Selfish Behaviour in Bilateral Network Formation," *Control, Networks, Games Seminar Series*, McGill University, May 2005.

"Selfish Routing and Peering in the Internet," CSAIL, Massachusetts Institute of Technology, August 2004.

REFERENCES

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