Marian Mihailescu

Romanian (Australian 457 Visa holder) • Male • Married • November 16, 1981

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Academic Qualifications

- **PhD. in Computer Science**   submitted Jan 2012

  School of Computing, National University of Singapore
  Thesis: Strategy-proof Resource Pricing in Federated Systems
  Supervisor: Assoc. Prof. Y. M. Teo (NUS)

- **BSc. in Computer Science**   2005

  Faculty of Automatic Control and Computers, Politehnica University of Bucharest
  Thesis: Collision Avoidance in Hierarchical Peer-to-Peer Systems
  Supervisors: Assoc. Prof. Y. M. Teo (NUS) and Prof. N. Tapus (PUB)

Teaching Experience

Jul 2010 – Dec 2011   **Teaching Assistant**

Department of Computer Science, National University of Singapore

Conduct tutorial activity, create and grade assignments, supervise and grade group projects, conduct and grade laboratory activity, grade final exams, for the modules:

- *Programming Methodology*, level 1, feedback 4.0/5 (dept. avg. 4.0)
- *Software Engineering on Modern Application Platforms*, level 3, feedback 4.3/5 (avg. 4.0)
- *Introduction to Programming with MATLAB*, level 1, feedback 3.9/5 (dept. avg. 3.8)

Aug 2007 – May 2010   **Teaching Assistant** *(part-time)*

Department of Computer Science, National University of Singapore

Conduct and grade tutorial and laboratory activity, for the module:

- *Introduction to Operating Systems*, level 2, feedback 3.9/5 (dept. avg. 4.0)

Aug 2004 – Jan 2006   **Teaching Assistant** *(part-time)*

Department of Computer Science, Politehnica University of Bucharest

Conduct and grade laboratory activity, for the module:

- *Computer Networks*, level 3

Honors and Awards

2010   **Best Paper Award**

10th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP), Busan, Korea

2010   **IEEE Travel Grant Award**

TCSC Doctoral Symposium, 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid), Melbourne, Australia

2008   **WWDC Student Scholarship**

Apple 2008 World Wide Developer Conference, San Francisco, USA

2006 – 2010   **Research Scholarship**

Singapore Ministry of Education Graduate Research Scholarship

2004   **2nd Prize**

IEEE Computer Society International Design Competition, 5th Edition, Washinghton D.C., USA

2004   **1st Prize**

Hard and Soft International Design Competition, 11th Edition, Suceava, Romania

2004   **3rd Prize**

Microsoft Imagine Cup, 1st Edition (National Level), Bucharest, Romania

2003   **Jury Prize**

Hard and Soft International Design Competition, 10th Edition, Suceava, Romania

Research

Research interests include federated systems, cloud computing, peer-to-peer services and applications, networking, and embedded systems. My thesis focuses on pricing and allocation of shared computer resources in federated systems where providers and consumers of resources are rational users. Proposed is a strategy-proof, dynamic pricing mechanism that can allocate consumer requests for multiple resource types. The example application is a federated cloud marketplace, where resources from different cloud providers are integrated to increase elasticity and reliability. The prototype we have built, *SkyBoxz*, is a federated cloud platform that provides interoperability between different public and private clouds using web services and virtual private networks. It supports IaaS and the development of third party PaaS using the infrastructure provided.

Publications

1. M. Mihailescu and Y. M. Teo, *The Impact of User Rationality in Federated Clouds*, accepted for publication in Proceedings of 12th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid), Ottawa, Canada, May 13–16, 2012.

2. M. Mihailescu and Y. M. Teo, *Strategy-proof Dynamic Resource Pricing on Federated Clouds*, Future Generation Computer Systems, Elsevier, under review.

3. M. Mihailescu and Y. M. Teo, *A Distributed Market Framework for Large-scale Resource Sharing*, Proceedings of Euro-Par, pp. 418-430, LNCS 6271, Springer-Verlag, Ischia, Italy, Aug 31-Sep 3, 2010.

4. M. Mihailescu and Y. M. Teo, *Strategy-Proof Dynamic Resource Pricing of Multiple Resource Types on Federated Clouds*, Proceedings of the 10th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP), pp. 337-350, LNCS 6081, Springer-Verlag, Busan, Korea, May 21-23, 2010. (**Best paper award**)

5. M. Mihailescu and Y. M. Teo, *Dynamic Resource Pricing on Federated Clouds*, Proceedings of the 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid), pp. 513-517, IEEE Computer Society Press, Melbourne, Australia, May 17-20, 2010.

6. M. Mihailescu, *On Economic and Computational-efficient Resource Pricing in Large Distributed Systems*, Proceedings of the 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid), pp. 838-843, Melbourne, Australia, May 17-20, 2010. (TCSC Doctoral Symposium Paper)

7. Y. M. Teo and M. Mihailescu, *A Strategy-proof Pricing Scheme for Multiple Resource Type Allocations*, Proceedings of the 38th International Conference on Parallel Processing (ICPP), pp. 172-179, Vienna, Austria, September 22-25, 2009.

8. Y. M. Teo, V. March and M. Mihailescu, *Hierarchical Structured Peer-to-Peer Systems*, Handbook of Research on Scalable Computing Technologies, editors, K Li, C Hsu, Laurence T Yang, J. Dongarra and H Zima, IGI Global, Chapter 7, July 2009.

9. Y. M. Teo and M. Mihailescu, *Collision Avoidance in Hierarchical Peer-to-Peer Systems*, Proceedings of 7th International Conference on Networking (ICN), pp. 336-341, IEEE Computer Society Press, Cancun, Mexico, April 13-18, 2008.

References

- Dr. Yong Meng Teo

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- Dr. Martin Henz

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Additional references available upon request.