



Amir H. Payberah

Research Interests

- Distributed Systems and Algorithms
- Peer-to-Peer Systems
- Cloud Computing
- Gossip and Epidemic Algorithms
- Metaheuristics and Combinatorial Optimization

Education

- 2008-Present **PhD in Distributed Systems, KTH, Sweden.**
- Licentiate thesis: Distributed optimization of P2P Media Delivery Overlays.
- Supervisor: Prof. Seif Haridi
- 2006 - 2008 **MS in Distributed Systems, KTH, Sweden.**
- Thesis: ForsetCast for Peer-to-Peer live streaming.
- Supervisors: Prof. Seif Haridi and Dr. Ali Ghodsi
- 2000 - 2003 **MS in Computer Architecture, Amirkabir University, Iran.**
- Thesis: Distributed inspection of intrusion detection systems with mobile agents.
- Supervisor: Dr. Babak Sadeghian
- 1996 - 2000 **BS in Computer Science, Amirkabir University, Iran.**
- Thesis: Designing and implementing an I/O card and developing its device driver in GNU/Linux.
- Supervisor: Dr. Hossein Pedram

Experience

Teaching

- 2008 - 2011 **Teaching Assistant, KTH, Sweden.**
- Lectures on P2P media streaming, content distribution network and DHT given as a part of KTH MSc program on Distributed Computing, Peer-to-Peer and Grids (ID2210).
- 2008 - 2009 **Teaching Assistant, KTH, Sweden.**
- Lectures on DHT given as a part of KTH MSc program on Network Algorithms (EP2400).
- 2001 - 2006 **Lecturer, Amirkabir University, Iran.**
- Lectures on GNU/Linux architecture and programming.
- 2006 **Lecturer, Network Information Center (NIC), Iran.**
- Lectures on GNU/Linux system programming.

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- 2004 **Lecturer**, *Azad University*, Iran.
- Lectures on operating systems architecture.
- 2004 **Lecturer**, *MetaNet Co.*, Iran.
- Lectures on Linux device driver programming.
- 2004 **Lecturer**, *MetaNet Co.*, Iran.
- Lectures on Java programming.

Working

- 2007-Present **Researcher**, *Swedish Institute of Computer Science (SICS)*, Sweden.
- Peer-to-Peer media streaming within PeerTV project to design a flexible and efficient infrastructure for live media streaming over Internet.
- 2007 **Linux Programmer**, *Parallell Dator Centrum (PDC)*, Sweden.
- Integrating Tycoon and gLite Grid system within BalticGrid project.
- 2005 - 2006 **Linux Consultant**, *SiNA Co.*, Iran.
- Designing and developing embedded Linux kernel for a SOHO switch, based on PowerPC architecture on a FPGA board.
- 2005 - 2006 **Linux Technical Manager**, *DPI Co.*, Iran.
- Designing and developing customized GNU/Linux distributions from scratch.
- Creating two Farsi GNU/Linux distributions: *Learnux* and *Karamad*.
- 2003 - 2005 **Linux Technical Manager and Developer**, *GATA Co.*, Iran.
- Creating embedded GNU/Linux distributions for Set-Top-Boxes and Thin Clients.
- 2000 - 2003 **Linux Developer**, *MetaNet Co.*, Iran.
- 2001 - 2002 **Network Designer and Administrator**, *DP Co.*, Iran.

Publications

- Jim Dowling and **Amir H. Payberah**, *Shuffling with a Croupier: Nat-Aware Peer-Sampling*. To be appeared in the 32nd IEEE International Conference on Distributed Computing Systems (ICDCS'12).
- **Amir H. Payberah**, Jim Dowling and Seif Haridi, *GLive: The Gradient overlay as a market maker for mesh-based P2P live streaming*. The 10th IEEE International Symposium on Parallel and Distributed Computing (ISPDC'11).
- **Amir H. Payberah**, Jim Dowling and Seif Haridi, *Gozar: NAT-friendly Peer Sampling with One-Hop Distributed NAT Traversal*. The 11th IFIP international conference on Distributed Applications and Interoperable Systems (DAIS'11).
- Fatemeh Rahimian, Sarunas Girdzijauskas, **Amir H. Payberah** and Seif Haridi, *Vitis: A Gossip-based Hybrid Overlay for Internet-scale Publish/Subscribe*. The 25th IEEE International Parallel & Distributed Processing Symposium (IPDPS'11).
- Hakan Terelius, Guodong Shi, Jim Dowling, **Amir H. Payberah**, Ather Gattami and Karl Henrik Johansson, *Converging an Overlay Network to a Gradient Topology*. The 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC'11).
- **Amir H. Payberah**, Jim Dowling, Fatemeh Rahimian and Seif Haridi, *Sepidar: Incentivized Market-Based P2P Live-Streaming on the Gradient Overlay Network*. The IEEE International Symposium on Multimedia (ISM'10).
- **Amir H. Payberah**, Jim Dowling, Fatemeh Rahimian and Seif Haridi, *gradientTv: Market-based P2P Live Media Streaming on the Gradient Overlay*. The 10th IFIP international conference on Distributed Applications and Interoperable Systems (DAIS'10).

- **Amir H. Payberah**, H. Janzadeh and V. Kazempour, *Linux Device Driver Programming*, Ardalan Press, 2006, ISBN: 964-92399-8-7.
- **Amir H. Payberah**, M. Sarikhani and A. Nazari, *Linux Process Programming and Management*, Ardalan Press, 2006, ISBN: 964-92399-9-5.
- **Amir H. Payberah** and Babak Sadeghian, *Auditing Intrusion Detection System with Mobile Agents*. The 10Th Annual Computer Society of Iran Computer Conference, Tehran, Iran, Feb 2005.

Membership

- 2011 **Reviewer of the DAIS Conference**, *IFIP international conference on Distributed Applications and Interoperable Systems*.
- 2008 - 2011 **Reviewer of the P2P Conference**, *IEEE international conference on P2P computing*.
- 2010 **Reviewer of the CCNC Conference**, *IEEE consumer communications and networking conference*.
- 2005 **Member of the FOSS Technical Committee**, *The National Farsi Linux Project*.

Computer Skills

- OS Linux/Unix, Windows
- Programming Java, C/C++, Python, Perl, PHP, Ruby, Erlang