

Michał Piotr Szymaniak

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Summary:

Fast-paced R&D engineer with strong academic background, excellent problem-solving skills, and significant practical experience in designing and implementing large-scale distributed systems.

Education:

- **Ph.D. in Computer Science** (2007) from Vrije Universiteit Amsterdam, The Netherlands
Thesis: *Latency-Driven Replication for Globally Distributed Systems*
Advisors: Prof. Maarten van Steen and Dr. Guillaume Pierre
- **M.Sc. in Computer Science** (2002) from Warsaw University, Poland (**with distinction**)

Work Experience:

Note: numbers in square brackets refer to the relevant publications listed on the next page.

- **Staff Engineer / Project Manager**, Google, Mountain View, CA, October 2009 – till date
 - Coordinated integration of new infrastructure components with key products;
 - Co-authored company policies and PR statements, interfaced with legal;
 - Mentored individual engineers and teams.
- **Senior Software Engineer / Tech Lead**, Google, April 2008 – October 2009
 - Redesigned and led the development of proprietary infrastructure components;
 - Supervised a globally distributed production environment.
- **Software Engineer**, Google, April 2007 – April 2008
 - Improved the performance of Google's global hosting infrastructure.
- **Researcher**, Vrije Universiteit, Dec 2006 – March 2007
 - Developed a distributed testbed implementing connection handoffs using Mobile IPv6.
- **Research Assistant**, Vrije Universiteit, Sep 2002 – Dec 2006
 - Investigated the state-of-the-art in Web replica hosting systems [1];
 - Designed and implemented a scalable latency estimation system [6];
 - Designed and implemented an efficient replica placement algorithm [2,7];
 - Proposed how to organize hosts into virtual hosting platforms using Mobile IPv6 [3,8].
- **Engineering Intern**, Google, Summer 2005
 - Integrated my scalable latency estimation system into the Google infrastructure to evaluate and improve Google's policies for client redirection and frontend placement [4].
- **System Developer**, Vrije Universiteit, Spring/Summer 2002
 - Implemented the redirection system of the VU's open-source content delivery network that uses DNS and HTTP and derives network distances from BGP routing tables [5].

Publications:

Journal:

- [1] *Replication for Web Hosting Systems*,
ACM Computing Surveys, Vol. 36, No. 3, September 2004.
- [2] *Latency-Driven Replica Placement (Extended Version)*,
Invited Article, IPSJ Journal, Vol. 47, No. 8, August 2006.
- [3] *Enabling Service Adaptability with Versatile Anycast*,
Concurrency and Computation: Practice and Experience, Vol. 19, No. 13, September 2007.
- [4] *Practical Large-Scale Latency Estimation*,
Elsevier's Computer Networks, Vol. 52, No. 7, April 2008.

Conference:

- [5] *NetAirt: a Flexible Redirection System for Apache*,
Proc. of the IADIS International Conference WWW/Internet, November 2003.
- [6] *Scalable Cooperative Latency Estimation*,
Proc. of the 10th IEEE International Conference on Parallel and Distributed Systems, July 2004.
- [7] *Latency-Driven Replica Placement*,
Proc. of the 2005 IEEE International Symposium on Applications and the Internet, February 2005.
- [8] *Versatile Anycasting with Mobile IPv6*,
Proc. of the IEEE International Workshop on Advanced Architectures and Algorithms, October 2006.

Other:

- [9] *A Single-Homed Ad Hoc Distributed Server*,
Technical Report IR-CS-013, Vrije Universiteit, March 2005.
- [10] *From Web Servers to Ubiquitous Content Delivery*,
Book chapter in Global Data Management, IOS Press, July 2006.

Selected Talks:

- *Deciding on Satellite Placement*, Google, October 2005.
- *Wide-Area Handoffs in Ad Hoc Distributed Servers*, Vrije Universiteit, April 2005.
- *SCoLE: Scalable Cooperative Latency Estimation*, RIPE-47 Meeting, January 2004.

Achievements:

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| Fall 2007 | Invited to speak on Station Poland, KUSF 90.3FM, San Francisco, CA |
| Fall 2005 | Received a Student Scholarship to attend the 20th ACM SOSP Conference |
| Spring 2005 | Received the Best Paper Award at the 2005 IEEE SAINT Conference |
| Spring 2005 | Co-organized the 12th ASCI/GNARP Computing Workshop for PhD students |
| 2001 – 2002 | Participated in the One-Year International Masters Program at Vrije Universiteit |
| 1999 – 2002 | Received the Scholarship for Outstanding Grades from Warsaw University |
| Winter 1994 | Installed the first Unix server for high-school students in Lublin, Poland |

Other Interests:

Hiking, wall-climbing, kick-boxing, books and movies.

References:

Available upon request.