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ALEX DEPOUTOVITCH

QUALIFICATIONS

- Skilled researcher and experienced computer programmer with more than 14 years of research and industry experience.
- Strong publications record in the peer-reviewed conferences and journals. The recent publication on the operating system kernel microreboot won the best paper award at the Eurosys' 2010 conference.
- Conducted cutting edge research in operating systems reliablilty and performance monitoring. Experienced in operating system kernel development, parallel programming, virtualization.
- Awarded a patent for a scalable network discovery mechanism.
- Excellent communication and personal skills with an experience in project leadership: supervised team members and interns.

RESEARCH INTERESTS

- **Operating systems**: reliability, fault tolerance, performance, error detection Current research focuses on the design of an operating system kernel capable of rebooting itself without termination of running applications (microreboot).
- **Virtualization**: live machine migration
- **System software**
- **Autonomic computing**
- **Parallel and grid computations**

EDUCATION

2004–2010 **University of Toronto** **Toronto, Canada**

- Ph.D., Computer science (Pursuing, expecting to graduate in winter 2011)
- Thesis title: "Otherworld" - Giving Applications a Chance to Survive OS Kernel Crashes.

1998–2000 **Moscow Institute of Physics and Technology** **Moscow, Russia**

- M.Sc., Applied Mathematics and Physics (Graduated summa cum laude)
- Thesis title: Computer Approximation of Characteristics of Matter Accelerated by Shock Wave during Explosion of Supernova

1994–1998 **Moscow Institute of Physics and Technology** **Moscow, Russia**

- B.Sc., Applied Mathematics and Physics

PUBLICATIONS

- **Depoutovitch, A.** and Stumm, M. Otherworld - Giving Applications a Chance to Survive OS Kernel Crashes. **Best Student Paper Award** In Proc. of the 5th ACM European Conference on Computer Systems, Eurosys'2010
- **Depoutovitch, A.** and Stumm, M. Otherworld - Giving Applications a Chance to Survive OS Kernel Crashes. In Proc. of the 4th Workshop on Hot Topics in System Dependability (2008).
- **Depoutovitch, A.** and Stumm, M. Software Error Early Detection System Based on Run-time Statistical Analysis of Function Return Values. In Proc. of the 1st Workshop on Hot Topics in Autonomic Computing (2006)
- **Depoutovitch, A.** and Wainstein, A. Building Grid-Enabled Data-Mining Applications. Doctor Dobbs Journal Vol. 30, Issue 12, pp. 41-48 (2005)
- Nadyozhin, D. K. and **Depoutovitch, A.** An analytical approximation of post-shock conditions in type II supernova shells. Astronomy and Astrophysics. 386, 711 (2002)
- Nadyozhin, D. K., Panov, I. V., **Depoutovitch, A.** A two-code method for studying some episodes of stellar nucleosynthesis. In Proc. of the 10th workshop on "Nuclear Astrophysics" Tegernsee, Germany (2000)
- **Depoutovitch, A.** and Nadyozhin, D. K. Propagation of Shock Waves in Type-II Presupernovae. Astronomy Letters, Vol. 25, Issue 10, pp.649-655 (1999)

PATENTS

- **Depoutovitch, A.** and Sieroka, D. and Pollack, S. Method for Efficient Thread Usage for Hierarchically Structured Tasks. Pending. Publication number: US 2009/0070773 A1 Application number: 12/207,648 (2007)

PRESENTATIONS

- **Depoutovitch, A.** Reboot without rebooting. Invited talk at Novell SuSe Labs Conference 2010
- **Depoutovitch, A.** and Stumm, M. Otherworld - Giving Applications a Chance to Survive OS Kernel Crashes. **Best Presentation Award** at 5th ACM European Conference on Computer Systems, Eurosys'2010
- **Depoutovitch, A.** The use of grid computing to speed up prediction. Workshop on Data Mining Methodology and Applications, The Fields Institute, Toronto, Canada, October 28-30 (2004)

INDUSTRIAL EXPERIENCE

01/2006-CURRENT **Novell (Platespin division)** Toronto, Canada

Senior Software Developer

- Performed initial research, created design and prototype for a live migration of the Linux-based physical and virtual servers (key feature of the latest release of the flagship product).

- Designed and developed a low overhead driver for disk activity monitoring for Linux. Hot driver updates, zero service interruption during install and uninstall, and extremely low overhead put the product step ahead of competitors.
- Designed and developed a highly scalable engine for performing real time monitoring and performance data summarization and analysis for large datacenters (up to 3000 nodes with a single installation).

02/2003 – 01/2006 **Generation 5** Toronto, Canada

System Architect – Team Lead

- Designed and led the development of a framework for distributed statistical calculations, such as prediction, feature selection, clustering, etc. The framework resulted in the first commercially-available data mining software running on a computational grid, rather than on a single machine. The software was capable of processing large (up to 1TB) datasets with 1000+ of columns.

07/2000 – 02/2003 **Emailtopia Inc.** Toronto, Canada

Senior Software Developer

- Took part in the development of an intelligent email management and processing server. Was responsible for fault tolerance and performance tuning parts of the project

04/1999 – 06/2000 **Croc Inc.** Moscow, Russia

Senior Software Developer

- Participated in design and implementation of a distributed system for conducting parliamentary and presidental elections. The system allowed simultaneous work of hundreds of users and processed data records about millions of voters.

03/1998– 04/1999 **Ankey/Information systems** Moscow, Russia

Software Engineer

- Took part in development of a system for deploying database of video clips over the intranet.

02/1997- 12/1997 **MedCom Ltd.** Moscow Russia

Software Developer

- Developed a kernel mode I/O library for Windows NT

09/1995– 08/1996 **Computer Research Center at MIPT** Moscow Russia

Junior Software Developer

- Developed networking utilities for Unix