

Alexey Rudenko

914 N. Ogden Dr., #1, LA CA 90046 / Tel. (home): 323.848.3015 (office): 310.825.8524 / arudenko@cs.ucla.edu

Education

- BS in Mathematics, National University of Ukraine, Kiev.
- MS in Computer Science, University of California, Los Angeles, 1998.
- PhD in Computer Science, University of California, Los Angeles, 2002.
Thesis: "Automated Planning for Open Network Architectures." Advisors: Peter Reiher and Gerald J. Popek.

Experience

Research Assistant, University of California, Los Angeles 1995 -- Present

- Designed and implemented planning software for *open network architectures*. The planner calculates the proper order and location for mobile adaptation modules deployed to facilitate a speedy and efficient unicast connection data transfer through heterogeneous networks for real-time applications. The planner outperforms exhaustive planning by orders of magnitude with the same quality of plans for most cases. The focus of the design for the planning protocol was on speed, resource management, and security.
- Designed and implemented software that provides remote execution for power-costly processes, saving mobile computer battery power. The initial state of a power-costly computation is transmitted to a remote server and the result of the computation is sent back to the client using radio-enabled devices on mobile computers.
- Built testbeds for the testing of new software, worked out the experimental methodology, conducted extensive experiments, and evaluated the results using statistical analysis.
- Worked with research team to develop, debug, release, and maintain *Rumor* peer-to-peer file replication service.

Project Leader, IADE American Schools, California, Los Angeles 1992 -- 1995

- Developed and maintained distributed DBMS that recorded academic progress of 10,000 students of six school campuses located in California and Florida.
- Daily tasks included enhancement, maintenance, and trouble-shooting of

computer networks and software for the IADE AS campuses.

- Provided training course for the staff.

Publications

Vincent Ferreria, Alexey Rudenko, Kevin Eustice, Richard Guy, V. Ramakrishna, and Peter Reiher, "Panda: Middleware to Provide the Benefits of Active Networks to Legacy Applications," *DANCE 02 Active Network Conference*, January 2002.

Alexey Rudenko and Peter Reiher, "Experience with Automated Planning for Panda," *UCLA Tech Report CSD-TR-010041*, November 2000.

Peter Reiher, Richard Guy, Mark Yarvis, and Alexey Rudenko, "Automated Planning for Open Architectures," *Openarch 00*, short paper session, March 2000.

Mark Yarvis, An-I A. Wang, Alexey Rudenko, Peter Reiher, and Gerald J. Popek, "Conductor: Distributed Adaptation for Complex Networks," *Proceedings of seventh workshop on Hot Topics in Operation Systems*, 1999.

Alexey Rudenko, Peter Reiher, Gerald Popek, and Geoff Kuenning, "Portable Computer Battery Power Saving Using a Remote Processing Framework," *Mobile Computing Systems and Application Track of the ACM SAC*, February 1999.

Alexey Rudenko, Peter Reiher, Gerald Popek, and Geoff Kuenning, "Saving Portable Computer Battery Power Through Remote Process Execution," *ACM Mobile Computing and Communication Review (MC2R)*, Vol. 2, No. 1, 1998.

Research Interests

Distributed and mobile systems, adaptive software systems, middleware services.

Further Information

US citizen. References are available upon request.