

ANA-MARIA VIȘAN

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OBJECTIVE

- To secure an **Internship** position in the field of Operating Systems and High Performance Computing in **Summer (May - Aug 2009)**.

ACADEMICS

Northeastern University, Boston, MA

Fall 2006 - Present

- Ph.D. Candidate in Computer Science, GPA: 3.963 / 4.0
- Advisor: Prof. Gene Cooperman (leads the High Performance Computing Lab)
- Research Interests: Operating Systems, Parallel and Distributed Computing, Checkpointing, High Performance Computing

Politehnica University of Bucharest, Bucharest, Romania

Fall 2001 - Summer 2006

- BSc in Computer Science, GPA: 3.728 / 4.0

SKILLS

- **Languages:** Assembly, C, C++, JAVA, SQL, Python
- **Platforms:** Linux, Windows
- **Others:** MPI, TCP/IP, Sockets, Posix Threads

WORK EXPERIENCE

NetApp

May-August 2008

Intern, WAFL File System Group, Sunnyvale, CA

- Worked on increasing the number of snapshots from 255 to 2550.

Northeastern University

Instructor of Record, College of Computer and Information Science

Computer Science and its Applications, 17 students

Summer 2007

- Taught lab sessions about the underlying operating system (*Windows*), the design and use of spreadsheets (*Excel*), databases (*Access*) and statistical packages (*SPSS*); evaluated students.

Discrete Structures, 26 students

Spring 2007

- Taught mathematical structures, methods and algorithms that form the basis of Computer Science; evaluated student progress; provided office hours.

Northeastern University

2006-Present

Teaching Assistant, College of Computer and Information Science

- Graduate level: **Network Security, Wireless Networks.**

- Undergraduate level: **Computer Science and its Applications, Discrete Structures.**

Politehnica University Bucharest

Teaching Assistant, Computer Science Faculty

Data Structures

Spring 2006

- Conducted weekly lab sessions on data structures and algorithms; evaluated student progress.
- Helped students implement and debug programming assignments in C and C++.

DMTCP:

Spring 2008 - Present

- DMTCP is a transparent user-level distributed checkpointing package, that requires no kernel patches and no kernel modules.
- The application can later be restarted from the checkpoint image, in the event of a node/process failure.

Large State Space Enumeration Problems Using Parallel Disks as Primary Storage:

Fall 2007 - Spring 2008, Spring 2009

- Worked on developing a new approach to direct condensation that uses disks as primary storage.
- The disk-based approach produces condensation matrices for the sporadic simple Janko Group J_4 .

Distributed Checkpointing Scheme for Preserving Data Integrity in the Presence of Multiple Disk and Network Failures:

Fall 2008

- Worked on developing an integrated approach to fault tolerance that combines an error-correcting code with network reconfiguration middleware (NetRec) and a distributed checkpoint package (DMTCP).

PAST PROJECTS

Operating Systems Projects:

- *Linux*: mini-shell, file server, process information daemon, system calls monitor kernel module, kernel module for the serial port, kernel module implementing a virtual disk, firewall for IP packets kernel module; all written in C.
- *Windows*: mini-shell, process information daemon, system calls monitor kernel module, firewall for IP packets kernel module; all written in C.

Networking Projects:

- Implemented and tested CRC and Hamming, file server protocol, RARP protocol, IDEA encryption/decryption, CGI application for compiling and executing C programs under Linux, mail transfer agent based on SMTP; all written in C/C++ under Linux.

Multi-player Game on PDAs:

- Designed and implemented the GUI, the engine and an application specific communication protocol in Java, NetBeans, J2ME.

Graphical Simulator of Interactions between Objects from the Real World:

- Simulated interactions between objects of different shapes using OpenGL, C++.

GRADUATE COURSEWORK

- Intensive Computer Systems • Advanced Algorithms • Parallel Computing • Wireless Networks • Information Retrieval • Data Mining • Principles of Programming Languages • Theory of Computation