

Paul A. Cychosz

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OBJECTIVE

Professional position in software development or design. Special interests are security, OS/Distributed systems, and networks. Secondary interest in graphics and rendering.

EDUCATION

University of Wisconsin-Madison

B.S. Computer Science, expected graduation December 2005

- Member of UPL (Undergraduate Projects Lab).

Academic & Non-Academic Projects

- Improved NFSv2 & NFSv3 by implementing a middle-box that uses semantics from an NFS client to intelligently cache pages resulting in better server scalability and performance. See [-http://www.cs.wisc.edu/~cychosz/nfsgraybox.html](http://www.cs.wisc.edu/~cychosz/nfsgraybox.html)
- Devised a protocol to prevent packet-injection into a stream for 802.11 networks based on hash-chaining (MD5). A user-level simulation was created for proof of concept but time constraints prevented a full kernel/driver level implementation. See [-http://www.cs.wisc.edu/~cychosz/wifiHashChain.pdf](http://www.cs.wisc.edu/~cychosz/wifiHashChain.pdf)
- Created a database accounting solution for a small dental-tech lab business. Utilizing .NET Framework, Crystal Reports, a relational DB, and GDI+.
- Created a secure server-client based poker game using SSL and many thread synchronization techniques. GUI front-end created using Java.
- Created a mini-Photoshop like program that manipulates images using low/high-pass filters, dithering techniques, color quantization, compositing, and other operations.
- Recreated parts of a larger DBMS (Minibase). Namely, a buffer manager, heapfile, B+ Tree indexer, and a sort-merge joiner.

Relevant Course Work

- Information Security, Operating Systems, Advanced Operating Systems, Linear Programming, Algorithms, Computer Networks, Rendering*, Computer Graphics, Database Management Systems, Artificial Intelligence, Theory & Design of Prog. Lang., Data Structures, Machine Organization & Architecture, Discrete Math, Fundamental Hardware Logic, Calculus (3 semesters), Linear Algebra and Differential Equations, German (3 semesters)
- Fall 2005 Semester: Advanced Computer Networks, Theory of Computation

Related Work Experience

Intuit Corporation, Mountain View, CA

Software Engineer Intern, *Summer 2005*

- Ported and then improved an internal website/database from one business group to another based on requirements gathered from many people. Responsibilities included refactoring of code and database, and many new server side scripts and functionality. Technologies used were mostly Coldfusion, SQL, Javascript, CSS, XML, and some Java.

SKILLS

Proficient with: C, C++, Java, SQL, Coldfusion, XML, VB .NET, Javascript, HTML.

Familiar with: OpenGL, SML, Crystal Reports, CSS, MIPS Assembly, Prolog, Python, Scheme.

Operating Systems: Windows 98/ME/2000/XP, Linux, Sun Solaris, some OpenBSD

Software Tools: Visual Studio .NET, gcc/g++, gdb, Matlab, CVS, FLTK, .NET Framework, Purify.

--Currently learning/working with: 802.11n (TGn Sync, WWiSE), Python, Win32 API, C#