

Joseph P. Dunn

Curriculum Vitae

Gainesville, FL

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Education

Ph.D. Computer Science, August 2007

Thesis title: *SafeShare: Secure File Sharing Across Trust Boundaries*

University of Colorado at Boulder

M.S. Computer Science, December 2003

University of Colorado at Boulder

B.S. Computer Science, May 2001

University of Arizona

Employment

Senior Software Engineer

Tucker-Davis Technologies

Alachua, FL

Jan 2008 to Present

Duties:

- Work closely with technical support and sales staff familiar with customer needs to develop new software products and improve current applications.
- Embedded programming for PIC processors using the MPLab environment coupled with basic circuit design and board layout using Altium Designer.
- Maintenance of existing Windows MFC applications that interact COM/ActiveX components.

Primary Software Developer, Owner

Iguanaworks Incorporated

Denver, CO

May 2005 to Present

Duties:

- Design and implementation of a cross-platform (Linux, Windows, OS X) driver for a USB infrared transceiver.
- Development of a boot loader and loadable firmware for the Cypress CY7C63812 embedded USB chip.
- Technical support and maintenance of existing software and firmware.
- Continuing creation and development of new products.

Research Assistant

University of Colorado, Department of Computer Science

Boulder, CO

Adviser: Dr. John Bennett

August 2001 through May 2007

Accomplishments and Duties:

- Designed and implemented SafeShare, a web-based system for file replication, sharing, and management, allowing users to easily share file data based on trust relationships.
- In cooperation with Dan Crawl, designed and implemented a modular event routing system (Fern) focused on tracking and acting on file system events.
- Assisted in the design and development of the Bifrost system.
- Supervised undergraduate students developing code for the Bifrost and Fern research projects.
- Assisted in writing grant proposals.

Lab Assistant and Instructor

University of Arizona, Department of Continuing Education
Tucson, AZ
October 1999 to June 2001

Duties:

- Prepared lab machines for MCSE, Cisco, A+ and other classes.
- Repaired, upgraded, and replaced computers as necessary.
- Occasionally taught Introduction to Java classes.

Teaching Experience

Instructor

University of Colorado, Department of Computer Science
Boulder, CO
May 2006

Duties:

- Adapted materials for an undergraduate operating systems course.
- Prepared the syllabus, projects, and exams.

Publications

Journals

A Practical Cross-Layer Mechanism For Fairness in 802.11 Networks, by Joseph Dunn, Michael Neufeld, Anmol Sheth, Dirk Grunwald and John Bennett. ACM/Kluwer Mobile Networks and Applications Journal. December, 2005.

Conferences

Just-In-Time Sensor Networks, by Gary V. Yee, Brian Shucker, Joe Dunn, Anmol Sheth, and Richard Han. EmNets, May 2006 (Boston, Massachusetts).

A Practical Cross-Layer Mechanism For Fairness in 802.11 Networks, by Joseph Dunn, Michael Neufeld, Anmol Sheth, Dirk Grunwald and John Bennett. BroadNets, October 2004 (San Jose, California).

Using Location Dependence to Manage Mobile Data, by Daniel Crawl, Joseph Dunn, Avneesh Bhatnagar, Evan Speight, and John Bennett. Proceedings of the 3rd Annual International Conference on Mobile and Ubiquitous Systems: Networks and Services (MOBIQUITOUS 2006), San Jose, California. July, 2006.

Sequenced Subset Operators: Definition and Implementation, by Joseph Dunn, Sean Davey, Ann Descur and Richard T. Snodgrass. Proceedings of the IEEE International Conference on Data Engineering (ICDE2002), February 2002, pp. 131-140.

Workshops

Application Management Techniques for the Bifrost System, by Avneesh Bhatnagar, Evan Speight, Dan Crawl, Joseph Dunn, and John Bennett. Proceedings. Fifth IEEE Workshop on Mobile Computing Systems and Applications, p. 66, 2003.

Technical Reports

Adaptive Component Management in Bifrost, by Avneesh Bhatnagar, Evan Speight, Dan Crawl, Joseph Dunn, and John Bennett. Cornell University Technical Report CSL-TR-2003-1030 – 2003

Department Service

University of Colorado, Department of Computer Science
Boulder, CO

Executive Committee, graduate student representative

AY 2004-2005

Duties:

- Represented graduate student interests at biweekly “steering committee” meetings for the department
- Assisted in the department’s faculty search process by organizing groups of graduate students to meet with prospective faculty candidates

Graduate Committee, graduate student representative

AY 2003-2004

Duties:

- Participated in biweekly meetings regarding graduate education policies

Additional Skills

- Skilled in programming for Linux, Windows, or embedded devices using C/C++, Python, Java, or several assembly languages.
- Extensive experience with MFC and Qt libraries for the development of graphical applications.
- 10 years of experience with Linux system administration, primarily using the Fedora distribution.

References available on request.