

# Donour Sizemore

19215 Chandler's Landing Dr. #304, Cornelius, NC 28031 USA  
(505) 750-1807 :: donour@cs.unm.edu

- EDUCATION**
- PhD*, Computer Science, University of New Mexico, Albuquerque, NM 2011
  - BS*, Mathematics, University of Chicago, Chicago, IL 2003
  - BS*, Computer Science, University of Chicago, Chicago, IL 2003
- PROFESSIONAL EXPERIENCE**
- Trackside Systems Director** 2011-2013  
Michael Waltrip Racing, Cornelius, NC
- Developed custom software for design, testing, and race strategy
  - Introduced HPC into design process
  - Developed and deployed advanced networking systems
  - Managed software engineers and track IT staff
  - Advised interns and student researchers at surrounding universities
  - Presented technical reports to sponsor and partners
- Visiting Researcher** 2009  
Sun Microsystems, Menlo Park, CA
- Researched performance and feature enhancements for Solaris operating system
  - Delivered GVRP system to production code-base, which reduces management costs for enterprise networking customers
- Research Assistant** 2005-2011  
Scalable Systems Lab, University of New Mexico
- Performed cutting-edge research in high-performance computing and networks
  - Presented posters, papers, and talks to the academic and industrial communities
- Solaris Networking Intern** 2008  
Sun Microsystems, Menlo Park, CA
- Analyzed performance characteristics of Solaris networking system, identified key bottlenecks, located and fixed bugs
  - Developed user networking interface that dramatically increases performance for customers as well as providing compatibility with Linux.
- Technical Programmer and Numerical Analyst** 2003-2005  
Economics Research Center, Chicago, IL
- Directed research computing efforts for field leading economists, instructed students and staff on scientific programming methods, designed and deployed state-of-the-art Linux clusters
  - Reduced running time for economic modelling codes by 50x or more, executed in days simulations that would have otherwise taken months
  - Adapted PC code for use on large Linux clusters, increasing both the capacity and capability of possible economic models for researchers
- Extreme Blue Intern** 2002  
IBM, Austin, TX
- Developed Active Directory compatibility features for Linux
  - Authored Active Directory for Linux guide and delivered to IBM technical staff and customers, presented results at international Common Internet Filesystem conference

- Research Lead** 2001-2002  
 Prometheon Inc, Chicago, IL
- Developed thin-client, Linux desktop environment
  - Conducted on-site customer demonstrations which directly resulted in sales
- Programmer** 2000-2002  
 Dept of Organismal Biology and Anatomy, University of Chicago, Chicago, IL
- Developed and maintained various scientific systems and control software, enabled world-class biology research
- Independent Software Consultant** 2000-2010  
 Various, Chicago, IL and Albuquerque, NM
- Networking Consultant** 1999  
 Letcher County Action Team, Whitesburg, KY
- Directed upgrade of corporate networking infrastructure,
  - Conducted training seminar to allow employees and volunteers to take advantage of improved computing resources

**PHD  
 DISSERTATION**

Title: **Parallel Network Protocol Stacks Using Replication**

My thesis introduces a new technique for implementing network protocol processing software. It allows for parallel processing without the need for locking mechanisms. Rather, global state is replicated across processors. On multi-core computer systems, this results in increased throughput and substantially better scaling of system resources. The effects of this technique are studied on common protocols such as TCP/IP.

**MAJOR  
 SOFTWARE  
 PROJECTS**

**Viper**, Racecar setup database with manufacturing integration  
**Sharks**, Wireless sensor network, used in racecar manufacture (with lasers)  
**Chronos**, Advanced timing/scoring and strategy system for professional race teams  
**Dominoes**, scalable, parallel network protocol implementation  
**Solaris Networking**, Unix kernel networking protocols and APIs  
**pyOBD**, Software to ECU data from OBD-II compliant automobiles  
**pyXede**, Software for automotive engine analysis and tuning  
**K42**, research operating system for large scale multiprocessors  
**MONDO**, a realtime shared library inspector and debugger  
**MiA**, a LabVIEW(tm) based MIPS Microprocessor emulator  
**Soundserver-TNG**, python implementation of soundserver  
**Soundserver**, automated, audio stimulus generator  
**Saber**, **ymbiont**, **aplot**, Data acquisition and analysis suite