

David A. Noblet

California Institute of Technology
1200 E California Blvd
MC 256-80
Pasadena, CA 91125
USA

Phone: 626.395.8399
Fax: 626.792.4257
dnoblet@cs.caltech.edu
<http://davidnoblet.com>

- PERSONAL ◇ Birthplace/date: Bloomington, IN, USA / Jan. 11, 1983
Citizenship: United States citizen
Marital status: Single
- EDUCATION ◇ **California Institute of Technology**, Pasadena, CA.
M.S. in Computer Science, expected: May 2008.
Advisor: Jason Hickey
- ◇ **University of New Hampshire**, Durham, NH.
B.S. in Computer Science w/ Honors, *Summa Cum Laude*, May 2005.
Honors thesis title: *Performance Evaluation of JXTA Communication Layers*.
Advisor: Phil Hatcher
- ◇ **Scholarships**
- Moore Fellowship (Caltech, September 2005 – present)
full tuition & stipend for four years
 - Class of 1933 Scholarship (UNH, 2003)
 - Glenice Dearborn Scholarship (UNH, 2002)
- RESEARCH
INTERESTS ◇ Distributed systems, network protocols, programming languages, compilers. Applications of formal methods wrt. the formal specification and verification of systems.
- RESEARCH
EXPERIENCE ◇ **California Institute of Technology**, Computer Science Department,
Professor Jason Hickey. (Summer 2005 – present)
Designed and developed a system, called *FixD*, for on-the-fly bug detection, reporting, and avoidance. Implemented an efficient model checking engine to support this work. Developed formal models in order to verify the correctness of a group communication protocol (using both formal proofs and automated model checking tools) that will be used in MojaveFS, a distributed filesystem in development by the group. Implemented a version of the verified group communication protocol in OCaml.
- ◇ **University of New Hampshire**, Computer Science Department,
Professor Phil Hatcher. (Spring 2004 – Spring 2005)
Performed a performance evaluation of the communication layers of the JXTA distributed application framework.
- TEACHING
EXPERIENCE ◇ **Teaching Assistant**, California Institute of Technology. (Fall 2007)
CS/EE 145 a: Networking. Professor Tracey Ho.
Responsible for designing (from scratch) and grading lab (programming) assignments, as well as holding class office hours to answer questions and offer programming help.
- ◇ **Teaching Assistant**, California Institute of Technology. (Winter 2007)
CS 101: Advanced topics in Computer Science. Instructor Cristian Tapus.
Responsible for evaluating in-class presentations and meeting with students to discuss their final papers for the class. Course content is comprised of student presentations/discussions on general topics in recent systems research, including reliability/fault-tolerance, distributed and parallel systems, and verification.

- ◇ **Teaching Assistant**, California Institute of Technology. (Fall 2006)
CS 134 a: Computing Systems. Professor Jason Hickey.
Responsible for grading homework sets and lab assignments, administering recitation sessions, and holding class office hours.
 - ◇ **Teaching Assistant**, California Institute of Technology. (Spring 2006)
CS 24: Introduction to Computing Systems. Professor André DeHon.
Responsible for grading homework sets and lab assignments, administering recitation sessions, and holding class office hours.
 - ◇ **Teaching Assistant**, University of New Hampshire. (Fall 2004)
CS 645: Formal Specification & Verification of Systems. Professor Michel Charpentier.
Responsible for grading homeworks and providing feedback on submitted proofs.
 - ◇ **Teaching Assistant**, University of New Hampshire. (Spring 2004)
PHIL 447: Computer Power & Human Reason. Professor Paul McNamara.
Responsible for grading homework and providing additional help to students outside of class.
- PUBLICATIONS
- ◇ C. Tapus, D. Noblet, and J. Hickey. FixD: Fault Detection, Bug Reporting, and Recoverability for Distributed Applications. The HIPS/TOPMoDelS workshop IPDPS 2007, Long Beach, CA.
 - ◇ C. Tapus, D. Noblet, V. Grama, and J. Hickey. MojaveFS: Providing Sequential Consistency in a Distributed Objects System. The 5th International Symposium on Parallel and Distributed Computing (ISPDC 2006), Timisoara, Romania
 - ◇ C. Tapus, D. Noblet, J. Hickey. MojaveComm: A Robust Group Communication Library for Grid Environments International Conference on Networking and Services (ICNS06), San Jose, California
 - ◇ G. Antoniu, P. Hatcher, M. Jan, and D. Noblet. Performance Evaluation of JXTA Communication Layers. The Proceedings of the Fifth International Workshop on Global and Peer-to-Peer Computing, May 2005.
- PRESENTATIONS
- ◇ “FixD: Fault Detection, Bug Reporting, and Recoverability for Distributed Applications” Presentation, Lee Center Workshop, May 2007
 - ◇ “MojaveComm: A Robust Group Communication Library” Poster, 7th USENIX Symposium on Operating Systems Design and Implementation (OSDI '06), November 2006
 - ◇ “Reliable, Fault-tolerant and Efficient Group Communication Library” Poster, ASC, October 2005
 - ◇ “JXTA Communications: A Performance Evaluation” Honors thesis defense, UNH, November 2004
- AWARDS
- ◇ UNH International Research Opportunities Grant. (Summer 2004)
- HONORS
- ◇ Presidential Scholar, University of New Hampshire. (2005)
 - ◇ Pi Mu Epsilon Mathematics Honor Society. (2005)
 - ◇ Upsilon Pi Epsilon Computer Science Honor Society. (2004)
 - ◇ Golden Key International Honour Society. (2003)
 - ◇ National Society of Collegiate Scholars. (2003)
 - ◇ Dean’s List, University of New Hampshire. (2001 – 2004)
- SKILLS
- ◇ Computer: Java, C/C++, Objective C, OCaml, Python, Lisp/Scheme, Intel x86, Spin, TLA+/TLC, HTML, PHP, *nix, OS X, Windows.
 - ◇ Language: English (native), French (intermediate spoken/written).
- REFERENCES
- ◇ Available on request.