

Curriculum Vita - Charles F. Peck

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Education

- Ph.D. candidate, The Union Institute and University, 2006 (expected).
- Non-matriculated graduate-level courses in computer science at Columbia University and Ball State University, 1990-1997.
- A.B., computer science, Earlham College, 1984.

Employment History

- Earlham College. 1995 - present. Assistant professor of computer science.
- Infocom, local Internet service provider. Partner, 1994-2000.
- Sybase, relational database software company. Senior Software Engineer and Architect, 1989-1994.
- Earlham College, computing services. Administrative programmer, 1985-1989.

Papers and Presentations

- *BigFE - A cost and power efficient platform for high performance computing education.* Alex Lemann, Kevin Hunter, Joshua McCoy, and Charles Peck. Poster, TeraGrid06 conference. June, 2006.
- *Teaching parallel computing to science faculty: best practices and common pitfalls.* David Joiner, Paul Gray, Thomas Murphy, and Charlie Peck. Paper, ACM's Principles and Practices of Parallel Programming conference. March, 2006.
- *Measuring and reducing network latency in the 2.6 Linux kernel.* Charles Peck, Kevin Hunter, Alex Lemann, Josh McCoy, Tobias McNulty, and Skylar Thompson. Poster, Society for Industrial and Applied Mathematics (SIAM) Parallel Processing for Scientific Computing, February, 2006.
- *LittleFe - The low-cost portable cluster for computational science education.* Charles Peck, Kevin Hunter, Alex Lemann, Josh McCoy, Tobias McNulty, and Skylar Thompson. Poster, Society for Industrial and Applied Mathematics (SIAM) Parallel Processing for Scientific Computing, February, 2006.

In November of 2005 LittleFe was awarded "Honorable Mention" by the Krell Institute in their Undergraduate Computational Engineering and Sciences Award Program.

- *Building Internet Distributed Computing Applications Using Existing Scientific Cores.* Charles Peck, Josh Hursey, Josh McCoy, and Vijay Pande. Dr Dobb's Journal, November, 2005.
- *New Directions for Computational Science Education.* Thomas Murphy, Paul Gray, Charles Peck, and David Joiner. HPC Wire, September, 2005.
- *Cluster Computing for Computational Science.* Invited talk at the 2005 Biennial conference of the Association of Christians in the Mathematical Sciences, Huntington University, Huntington, IN, June, 2005.

- *Folding@Clusters: Harnessing grid-based parallel computing resources for molecular dynamics simulations*. Charles Peck, Josh Hursey, and Josh McCoy. Poster, Society for Industrial and Applied Mathematics (SIAM) Computational Science and Engineering conference, February, 2005.
- *Calculating $1/\sqrt{x}$ for molecular dynamics packages on commodity vector architectures*. Charles Peck, John Schaefer, Josh Hursey, and Josh McCoy. Poster, Society for Industrial and Applied Mathematics (SIAM) Computational Science and Engineering conference, February, 2005.
- *Benchmarking and Tuning the GROMACS Molecular Dynamics Package on Beowulf Clusters*. Charles Peck, Josh Hursey, and Josh McCoy. Poster, SIAM's Parallel Processing for Scientific Computing conference, February, 2004. Our entry won the "Best Poster" award.
- *Uses of a Web camera in Microscopy, Molecular Biology and Biochemistry Laboratories*. Paul J. Ogren, Mike Diebel, Ian Kelly, Amy Mulnix and Charlie Peck. American Biology Teacher, January, 2004.

Student-Faculty Research and Applied Computer Science Activities

- Cluster Computing Group, <http://cluster.earlham.edu>.
- LittleFe, <http://LittleFe.net>.
- Green Science, <http://cs.earlham.edu/~charliep/green-science>.
- Computer Science System and Network Administrators.
- Hardware Interfacing Project.
- Database Administration Group (1995-2003).

Software Systems

- Folding@Clusters, large scale distributed computing infrastructure for molecular dynamics software. <http://cluster.earlham.edu>
- Bootable Cluster CD, Linux distribution geared towards computational science education. <http://bccd.cs.uni.edu>.
- WebDB, college registration and advising system. <http://webdb.earlham.edu>
- Sybase SQL Server and Omni Server.

Synergistic Activities

- Instructor, National Computational Science Institute's (NCSI) Parallel and Distributed Computing Workshops. Supercomputing Center for Education & Research (OSCER), Oklahoma University: August, 2005, August, 2004. Bethune-Cookman College: June, 2004. Houston Community College: May, 2006. Southwestern University: June, 2006. These week-long National Science Foundation funded workshops are for faculty who work at primarily undergraduate institutions.
- Steering committee member, SC (formerly SuperComputing) Conference Education Program for SC07, SC08, and SC09. <http://www.sc06.org>.

Collaborations and Affiliations

- Collaborators: David Joiner (Kean University), Paul Gray (University of Northern Iowa), Thomas Murphy (Contra Costa College), Henry Neeman (Oklahoma University), Robert Panhoff (Shodor Institute), Scott Lathrop (TeraGrid), John Iverson (Earlham College), Lori Watson (Earlham College), Michael Jackson (Earlham College), Vijay Pande (Stanford University).
- Graduate Advisor: Ellen Colburn