
Carl L. Lundstedt

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Overview

A recent graduate from the University of Nebraska comfortable with a demanding work environment. Accustomed to deadlines and working with limited supervision. Highly skilled in both data analysis and computer administration/programming.

Education

2001 Ph.D., University of Nebraska-Lincoln Department of Physics and Astronomy.
1995 M.S., University of Nebraska-Lincoln Department of Physics and Astronomy
1993 B.S., University of Dallas Department of Physics

Work Experience

1993-Present Graduate Research Assistant. A member of the DZERO collaboration at Fermi National Accelerator Laboratory. Worked both onsite and remotely at the University of Nebraska-Lincoln. Manipulated complex data files of varying formats across diverse computer systems to facilitate an analysis of DZERO data. Communicated with onsite experts to report findings and techniques. Maintained software crucial to other researcher's projects.

Teaching a Assistant at the University of Nebraska-Lincoln. Instructed undergraduate students in general and modern physics courses and laboratory sessions. Responsible for preparing lectures and assignments, tutoring, grading, assigning and recording student grades and administering and supervising exams.

Responsible for the computing resources of the high energy physics research group and frequently assisted departmental computational staff in upgrades and security issues.

1997 Onsite computer service technician at Technological Service Solutions (TSS) in Lincoln, NE. Serviced personal computer hardware for customers of Gateway, Sears and other PC vendors.

1991-1993 Research Assistant in low energy nuclear scattering experiments at the University of Kentucky Van De Graaf accelerator facility under the supervision of Dr. Sally Hicks, University of Dallas.

1989-1993 Undergraduate Teaching Assistant, University of Dallas. Instructed undergraduate students in physics and astronomy course work and assisted in laboratory setup and instruction.

Special Skills

Excellent oral and written skills; comfortable speaking in front of large groups. An accomplished instructor able to convey difficult concepts.

Skilled at abstract thinking and data analysis using a variety of data analysis tools.

Highly skilled in many different areas of mathematics including statistics, calculus and differential equations.

Contributed to Silicon Vertex Chip Test Beam Shifts at Fermi National Accelerator Laboratory. Supervised and was responsible for data acquisition.

Computer Skills

System administration experience in DEC VMS, DEC UNIX (TRU64), Windows NT/2000/95/98 and Linux, all in a dynamic research environment.

Computer Skills (continued)

Provided Linux expertise for the University of Nebraska-Lincoln Physics and Astronomy Department.

Assisted in identifying and halting security intrusions on Linux workstations for the University of Nebraska Physics Department.

Proficient in programming in C, Fortran, HTML, PERL, Maple and a variety of UNIX shells.

Constructed PERL and C-shell scripts to automate data retrieval and processing.

Experienced in all major office software suites including MS Office and Staroffice, with extensive experience with Power Point, Excel, Starimpress and Starcalc. Adept at image editing with GIMP. Written large documents using LyX and LaTeX.

Successfully ported in-house Fortran Code from VAX to DEC UNIX, and analysis code from VMS to UNIX.

Implemented Kerberos authorization under Linux and DEC UNIX.

Experienced in creating large computer system backups. Responsible for backups at DZERO and the University of Nebraska.

Awards and Professional Organizations

Husker Linux User Group, Founding Member and Co-chair, 2000-2002

University of Nebraska-Lincoln Outstanding Physics Teaching Assistant Award, 1994

Graduated Sigma Pi Sigma at University of Dallas, 1993

Society of Physics Students President, University of Dallas 1991-1993

List of Publications and Conference Papers

"127-Xe spectroscopy from compound (p,n γ) cross sections", with J.R. Vanhoy G.S. Schoenthal, Sally Hicks, M.T. McEllistrem, C. L. Lundstedt and D. Wang, Proc. Franklin Symposium in Celebration of the Discovery of the Neutrino, Philadelphia, C.E. Lane and R. I. Steinberg, Ed., World Scientific, (1993)

"Structural characteristics of 142-Ce through inelastic neutron scattering", with J. R. Vanhoy, J. M. Anthony, B. M. Haas, B. H. Benedict, B.T. Meehan, C.M. Davoren, and Sally Hicks, and C. L. Lundstedt Phys. Rev. C52, 2387 (1995).

"P874: A PROPOSAL TO MEASURE THE π^+ AND π^- LIFETIMES AT HIGH-ENERGY." By J. Freeman, S. Geer, C. Hojvat, C. Johnstone, J. Streets, D. Striley (Fermilab), L. DeMortier, N.D. Giokaris, D.M. Khazins (Rockefeller U.), S.Oh, T.J. Phillips, C. Wang (Duke U.), G. Snow, C. Lundstedt (Nebraska U.). FERMILAB-PROPOSAL P-874, (1995).

APS Centennial Conference 1999, Atlanta, Georgia "Search for Supersymmetric Top and Bottom Squarks at $p\bar{p}$ collisions at $\sqrt{s}=1.8$ TeV." Carl Lundstedt (University of Nebraska)

Pheno2000 Conference, U of Wisconsin, 2000, "New phenomena in the jets + missing Et signature at the Dzero Experiment.", Carl L Lundstedt (U. of Nebraska)

"Search for leptoquark pairs decaying to neutrino neutrino + jets in p anti-p collisions at $s^{1/2} = 1.8$ -TeV." By D0 Collaboration (V.M. Abazov et al.) (Currently in review.)

As well as 37 other papers associated with DZERO (CV on request)
