Fortuitous Technologies

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PROFESSIONAL EXPERIENCE

★ **President, Fortuitous Technologies, Austin, TX Jan 2000 — Current:**

- † Performance & Capacity Planning Services
- † Cluster and High-Availability Management
- † Deployment and administration Xen Virtual Servers
- † Development of advanced Linux training curricula
- † Network Documentation Services
- † E-commerce development in Mysql, PHP, and Linux
- † Linux kernel configuration, compilation, and installation

★ **Research Associate, Applied Research Labs, Austin, TX 1999:**

Developed C++ software in the Solaris/Unix environment. C development and debugging of legacy code, Qt GUI development. Training Documentation Development. Made extensive use of the Standard Template Library (STL).

★ **Senior Engineer, GDE Systems Inc., San Diego, California 1996-1999:**

Developed advanced algorithms for high speed communications, models for data analysis, gathering, and testing for communication. Performed statistical analysis of confidence limits on error rates and sample size to be applied to communications testing. Performed trade studies into commercial satellite simulation software for constellation design and communications.

Researched identification and classification of agricultural products using spectral imaging techniques. Designed and supervised research for spatial properties of satellite imagery.

Designed Image Processing Algorithms in development of multi-spectral image process tool for ground image decomposition and product quality control. C-Toolkit developer for the integration of custom image processing software into the ERDAS Imagine software environment.

★ **Research Scientist, University of Valencia, Dept of Astrophysics 1995:**
Conducted numerical analysis in quark-neutron matter with applications in hydrodynamics, thermodynamics, and sub-atomic chemistry. Conducted algorithm development of neutron matter and numerical model verification. System Administrator for HP and Linux workstations.

TECHNICAL SKILLS

- **General Programming**

  Fluent programmer in C, Perl, C++, and Fortran. Symbolic programmer of Mathematica, Maple, and SMP. Experienced UNIX shell programmer of sh, csh, tcsh, and Unix Systems Administrator. Extensive experience on IBM Risc 6000, Cray XMP, Cray YMP, Convex, DEC, and Sun computers. Extensive experience with awk and sed.

- **Systems Administration**

  Shell programmer in sh, csh, tcsh, and perl. Extensive experience with Unix networking including resolver, hosts, network communications, creation of new user accounts, kernel rebuilding, software installer, maintenance, PPP, and X installation.

- **Applied Mathematics:**

  Differential equations, functional analysis, integral transform techniques, general topology, dynamical systems, tensor calculus, differential geometry, differential equations, numerical integration. Field theory, initial value problems, advanced mechanics, classical electrodynamics, quantum mechanics, relativity, particle physics.

- **Operating Systems:**

  BSD Unix, IBM AIX, OSF1, ULTRIX, UNICOS, ConvexOS, Linux, HP-UX, DOS, Mac, VMS. Extensive experience on IBM Risc 6000, Cray XMP, Cray YMP, Convex, DEC, Solaris, and SunOS.

- **International Experience:**

  Fluent in English, Spanish, and Portuguese. Travel in Argentina, Brazil, and Portugal. Extensive travel in Spain and Mexico. Familiar with cultural aspects of Spain, Argentina, Brazil, and Mexico. Worked in Spain for over one year.

EDUCATION

- **PhD., Physics, University of Wisconsin, August, 1994.**
- **M.S., Physics, Texas A&M University, 1987.**
- **B.S., Physics, University of Texas at Austin, 1985.**

Conferences, Professional Courses, And Workshops

- Sistina Global File System (GFS) course, August, 2003.
- CACI Comnet-III and Predictor network modeling courses, July 1998.
- COM/DCOM Course, San Diego, Ca, May 1998
- International Symposium on Spectral Sensing Research, San Diego, California, Dec 1997
- 1997 MATLAB Conference, October 6-8, San Jose, California: