Mark Belnap

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OBJECTIVE

I want to develop innovative solutions to real engineering/software problems, with an emphasis on using open-source products and tools.

EDUCATION

BS, Civil Engineering, Apr. 1994, Brigham Young University.
MS, Civil & Env. Engineering, Dec. 1995, Brigham Young University.
- Masters Project: *Implementation of a conceptual model approach for groundwater flow and transport modeling.*

EMPLOYMENT

South Florida Water Management District.
- **Staff/Senior Engineer** Feb1996-present.
  Primary programmer of an hydrologic simulation model in C++ on a Solaris platform. Duties include designing and implementing algorithms as they are developed and coordinating analysis code development with GUI teams. Administers and maintains open-source tools for the entire agency. Serves as local guru before escalating computer problems though official channels. Initiated and implemented shift from proprietary tools (RogueWave, Versant, SunCC) to open standards and gnu tools (stl, xml, gcc).

Engineering Computer Graphics Laboratory, Brigham Young University.
- **Student Researcher/ Senior Programmer**, Dec. 1992- Feb 1996.
  Developed and implemented features for Groundwater Modelling System GUI. Coding was in C on a multi-platform Unix environment using Xlib. Assisted in the training and development of junior level programmers.

SKILLS

- **Programming Experience:** 7 years experience programming in C/C++ in a UNIX environment (HP, Solaris, Linux). Experienced in design, code, debug, refine cycle using appropriate software tools. Have implemented algorithms for Delauney triangulation, ray-tracing, data interpolation, image compression, data contouring, and 1-, 2- and 3-D finite element analysis code. Extensive experience with Xlib, RogueWave tools.h++, STL, XML, HTML, oo-design, oo-database and GUI design.