

Peter Schwer

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www.peterschwer.com

Education

Masters: UCSD in Computer Science, 2004, 3.6 GPA

- Emphasis in Computer Graphics and Vision

Bachelors: BYU in Computer Science, 2002, 3.6 GPA

Skills

Languages: C++, C++/CLI, C# 4.0, C, Perl5, HTML, CSS, Javascript, Matlab, XSL, makefile, shell scripting, catalyst, sql variants, Ada95

Tools: Vim, VS2010, Apache, wordpress, gdb, Hudson CI Server, Oracle, STL, MS XML, xdesigner, dbx, uxmetrics, purify, quantify, Windows, Solaris and Linux Variants.

Process: SEI CMM Level 5, ISO 9001:2000, ad-hoc

Experience

Senior Software Engineer, Trepp, 2007-present

Trepp provides data and analytics for commercial mortgage backed securities.

- Wrote a .NET wrapper to the Trepp Engine™ (in C++/CLI using gccxml).
- Migrated the Trepp Engine™ from a single-threaded 32-bit environment to a multi-threaded 64-bit environment (in C).
- Improved elements of the release process for the Trepp Engine™ by automating pre-release testing protocol via Hudson CI server.
- Added interactive charts and graphs to www.trepp.com.
- Added CM servers to TreppWire™ publishing infrastructure.
- Wrote a web-crawling application for retrieval of CMBS data.

Software Engineer, NIDS II, SAIC, 2004-2007

NIDS II is the targeting application at US Strategic Command for nuclear war planning (more than 1 million SLOC).

- Created an ESRI and C/JMTK based targeting mapping application demonstration and presented it to the Government customers resulting in kudos from USSTRATCOM (in Java).
- Selected as lead of Weapon Optimizer and developed new algorithm analysis and population processing methodologies yielding order-of-magnitude performance improvements. Also developed solutions to accommodate numerical instabilities in optimization routines.
- Implemented technical solutions that contributed to exceptional feedback from the customer including 99% and 100% award fees resulting in over \$321K in profit and a 10 out of 10 formal client assessment.

Teachers Assistant, CSE190 Rendering Algorithms, UCSD 2003

- Assisted students in developing a ray tracer. Judged rendering competition (see http://graphics.ucsd.edu/courses/cse190_s03.html).

Lead Web Developer and Administrator, BYU 2001-2002

- Programmed and administrated the RELATE web site. Involved working with ASP, XML, XSL, VBScript and legacy code (See <http://www.relate-institute.org>). Administered several web servers during a period of 1000% growth in site usage.

Student, BYU and UCSD 1995-2004

Notable projects:

- T-Splines modeling software (Masters Project with Dr. Sam Buss) (in C++).
- Thin-film fluid dynamics software for rendering watercolor paint (in C++).