

# Daniel Fleet

"Hands-on" Software Architect  
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## EXPERIENCE

### Principal Software Engineer SkillSoft PLC

2001-  
current

#### **Lead Architect, SkillSoft LMS Add-on Application Group**

- Responsible for overall architectural design of a set of strategic value-add applications for a hosted learning management system, as part of a software development process.
- Contribute directly to projects as a technical team lead, retaining a "hands-on" awareness of system operation, mentoring and leading development teams in realizing designs.
- Drive initiatives to introduce unit testing philosophy, usability studies, code-reuse and software infrastructure enhancements to lower deployment and management cost.
- Technologies include: Java, Tomcat, ColdFusion, JUnit unit testing, Ant, Web Services, Microsoft SQL Server 2005, Struts, WebWork, Freemarker, JSP, Object-oriented design, "lower-case" agile development processes.

#### **Senior Software Architect, SkillSoft Solution Services**

- Analyzed requirements and produced designs for enhancements to a standard learning management system to support migrating a principal customer from a highly customized platform to the standard platform.
- Led implementation of add-on applications and core product enhancements to meet the customer's specialized needs, in a manner to be marketable to a wider audience.
- Mentored local development team on adoption of new development methods and skills as a result of merging with an acquiring software engineering group, including transitioning from ASP to Java/JSP based development and agile methods.
- Technologies included: Object-oriented development, Java, Tomcat, Struts, JSP, Microsoft SQL Server 2000, Ant, test-first, unit-testing, "lower-case" agile development processes.

#### **Lead architect, SmartForce Global Services Custom Learning Management System**

- Principal architect and designer of a highly tailored learning management system for the largest client account of the company.
- Lead a team of 5 designers in analyzing formal requirements, and refactoring a pre-existing learning management framework to meet the requirements.
- Defined and championed a software design and development process for the dedicated software development team.
- Technologies included: Object-oriented design, ASP, IIS, Microsoft SQL Server 2000

#### **Senior Software Architect, SmartForce Global Services**

- Principal software designer and architectural consultant for a contracting services group that customized a hosted learning management system for specialized needs.
- Designed software and solution procedures for customer platform customization requests; Interacted with customers to gather and analyze customer requirements and translate them into effective designs.

#### **System Architect, SmartForce Learning Management System**

- Member of the software design team for an advanced reporting delivery platform and instructor-led training module development, using the Rational Unified Process.
- Mentored developers in implementation of designed applications on an ASP application.

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**Senior Software Developer and Co-Founder, NVision Software Systems Inc.****1997-2001 Business Administration**

- Co-founded a startup to develop and market technology for interactive visualization of dynamic relational information using three dimensional graphical techniques.
- Served on the Board of Directors, helping raise \$1.2 million in venture capital, negotiating the acquisition of key intellectual property rights from the University of New Brunswick.
- Attended marketing and trade shows to demonstrate and promote the product. Participated in on-site customer sales and setup programs.

**Senior Software Developer**

- Re-engineered a Silicon Graphics Irix-based visualization application to the Microsoft Windows platform, using C++ and the OpenGL graphics standard.
- Designed general visual representation and three dimensional layout techniques for relational data.
- Led a development team on implementation of application functionality.
- Designed and implemented business domain demonstration applications for marketing and sales, application Installshield installer, and maintained the unit test framework, testbed, and build system.
- Administered software alpha and beta programs.

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**Senior Developer, University of New Brunswick Human-Computer Interaction Lab****1995-1997 Senior Developer, Collaborative Work Environment Project**

- Designed and implemented a virtual world communication and control infrastructure for a generic-task, multiple user, three-dimensional collaborative graphical work environment, running over TCP/IP, written in C++ and OpenGL.
- Created proof-of-concept application server and clients, consisting of a multi-user 3D undersea pipeline layout planning system.

**Senior Developer, Human-Computer Interaction Lab Research**

- Performed experimental studies on 3D scene navigation, path finding, and virtual world interaction techniques.
- Collaborated with Dr. Colin Ware on the design and implementation of a set of graphical widgets for navigating virtual space using mouse inputs based upon experiment results.
- Presented findings at conferences and wrote papers for academic publication.

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**Programmer/Analyst, Point Lepreau Nuclear Generating Station, NB Power Corporation****1992-1994 Programmer/Analyst, Control Systems Group**

- Designed and deployed a toolkit and hardware driver modification for the exchange of code and data between a PC network and the Varian V-70 control computers; Refactored mission-critical station control management applications from Pascal to Modula-2.

**Programmer/Analyst, Data Management Group**

- Principal designer and developer of a reusable, object-oriented windowing text editor component in C, for integration into VAX/VMS data management systems.
- Contributed to the design and implementation of a framework for VAX/VMS based station data management systems, and implemented applications using the framework.

## Education

### Master of Computer Science, University of New Brunswick

Thesis: *Visualization of Data Communications in 3D*.

- Graduated with first class honors.

### Thesis Study

- Led experimental studies regarding the effect of frame rate on a viewer's perception of animated sequences of similar objects.
- Developed and experimentally tested rendering techniques designed to overcome the effects of temporal aliasing.
- Implemented and evaluated a 3D representation of a communication link, graphically animating message transmission rate to cover three orders of magnitude.
- Applied the research results in a 3D visualization of a cellular telephone network for Nortel.

### Individual Study

- Designed and implemented visual techniques for enhancing HTML pages with animated graphical 'gestures' as overlays.
- Implemented a web browser enhanced with graphical gesture recording bound to HTML elements, audio recording, and scripted playback capabilities.

### Bachelor of Computer Science, University of New Brunswick

Thesis: *Formal Description Techniques for Communication Protocol Design and Implementation*

- Graduated with first class honors with a specialization in Software Systems.
- Completed the 'Co-Op' work term education stream, alternating real-world work experience with academic semesters.

## Publications

- *An Environment that Integrates Flying and Fish Tank Metaphors*, CHI'97 Demonstration paper, CHI'97 Extended Abstracts, Atlanta, GA, pp 8-9.
- *Integrating Flying and Fish Tank Metaphors with Cyclopean Scale*, Proceedings of Computer Graphics International, 1997, Hasselt and Diepenbeek, Belgium, pp 39-46.
- *Context Sensitive Flight Interface*, Proceedings of the 1997 Symposium on Interactive 3D Graphics, Providence, RI, pp 127-130.
- Sat on expert's panel at the *National Research Council Workshop on Visualization*, in July 1999, Ottawa. Topic of discussion was "Aspects of visualization and its value in real-world applications".

## Certifications

*Microsoft Certified Professional:*

- 70-229 – Designing and Implementing Databases with SQL Server 2000
- 70-300 – Analyzing Requirements and Defining Microsoft .NET Solution Architectures
- 70-310 – Developing XML Web Services and Server Components with Microsoft .NET