

# Mike Morley

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**Education** 1994 B.A. Sc. Geological Engineering University of Waterloo, Haskayne school of business project management seminars, OOPSLA conference 2004, Matrix Solutions Career Builder 2007, Patterns and Practices 2007, Presenter at BST Conference 2008

## Experience

2005-Present **Matrix Solutions** **Calgary, Alberta**

*Enterprise Architect*

Matrix is a rapidly growing 200 person environmental and engineering consulting firm. Lead of the Information Engineering and IT groups at Matrix, reporting directly to the CEO. Mandate is to re-engineer all Matrix information systems to support rapid growth and continued expansion. A two year plan was presented and accepted by the CEO, CFO and senior management which included replacing servers, all network infrastructure, recruiting staff for helpdesk and IT manager, and restructuring core business applications.

Enterprise Architect responsibilities include designing and implementing corporate systems architecture, setting direction and vision for Matrix IT and IM based on Matrix business goals and system design, development, and deployment in support of and extending the business.

2003-2005 **Golder Associates** **Calgary, Alberta**

*Application Development Specialist*

Designed and development of applications to meet client and Golder business needs. Lead client and development team meetings to determine specifications, set goals, budgets and delivery targets, managed projects and ensure completion on time on budget. Performed code reviews for team.

Leveraged Geotechnical and information systems experience to deliver solutions to meet the unique requirements of the Three Sisters Mountain Village undermining project.

Travelled to other Golder offices to evangelize technology – gave seminars on 3d mine modelling project at Golder Vancouver office.

June 2002-2003 **Pandell Technology Corporation** **Calgary, Alberta**

*R&D .net platform migration Development Team/R&D team/Product Planning team/Senior Developer*

Senior developer responsible for designing and building systems. Participated in client meetings, design sessions and contributed on all levels of development from SQL server stored procedures to business tier (C#) to client built both in webforms and in Ajax.

Senior developer on R&D team migrating system from ASP/COM based model to Microsoft .net framework. Used the Agile development methodology, and extreme programming techniques. Contributed on all levels of the system from writing SQL server stored procedures through the business layer to fully designing and building a full-featured browser based file manager using object methodologies under the direction of the Pandell Liquid Intelligence Product Manager.

Product planning team member – helped set targets and direction for overall product development. Provided concepts, documentation and innovative ideas.

1998 - June 2002 **Pandell Technology Corporation** **Calgary, Alberta**

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### *Product Manager Portal Solutions/Senior Developer/ Development Lead*

Responsible for designing and leading development projects relating to document/information management at Pandell. Lead the specification and development of the Pandell Content Management/Portal product (Synergy Series) through the application of market trends, customer feedback and direction from Pandell's business management team. Developed and managed the deployment to Alberta Treasury Branches (2 installations), Bennett Jones (1 installation) and Syncrude Extraction and Utilities divisions (2000+ users). Aggregated feedback from clients on Synergy Portal Product, filtered support requests into bug fixes vs new feature requests and balanced client needs against the version development timetable. Managed client expectations and ensured customer satisfaction with the product. Co-ordinated on-site support and maintenance of the Synergy product in compliance with stringent requirements of production operations – in particular Syncrude installations.

### 1997 – Aug 1998 **SHL Systemhouse , Calgary Alberta**

#### *Systems Analyst*

Developer for Intranet project for Petro-Canada – Responsible for building integration point with Documentum, and providing development for core ASP aspect of system.

Developed and wrote proposals in response to RFQs and new project bids

### 1995 - 1997 **Kuhn and Associates , Toronto Ontario**

#### *3D Animator, Network Administrator, Webmaster/Developer*

Kuhn and Associates is a premier marketing agency for Engineering companies.

Designed and built 3D models of a variety of engineering systems including robotics assembly lines, nuclear steam generators, injection moulding systems. Used the models to create 3D computer animation using 3D Studio Max for corporations such as ATS Robotics, Engel corporation, Janssen Ortho and Bombardier.

K&A production/design team member on a variety of internet related projects (see [www.industrylink.com](http://www.industrylink.com) a database driven search engine – in operation since 1996, developed on first version of ASP)

### Nov 1994 - 1995 **Northern Survey Supply**

### **North Bay, Ontario**

#### *Project Lead Mining CAD applications*

Established a training centre for AMINE - Noranda's computer assisted mine design and CAD drawing management system. Implemented formal training program at Falconbridge's training centre - trained 45 engineering/geology employees, over 8 modules - which made use of government compliant material, tests and computer based presentation slides. Also responsible for writing formal documentation for the AMINE system – including a 200 page manual outlining all aspects of the system. Also provided on site support for the mines on CAD applications, and networks.

### July 1994

### **Franklin Geotechnical LTD**

### **Orangeville Ontario**

#### *Programmer*

Developed a Turbo C++ C-Language routine to combine data from multiple image analysis to produce an overall size distribution curve for the Blasting Fragmentation Analysis project – which was subsequently incorporated into the WipFrag product (<http://www.wipware.com>)

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Presented results of Undergraduate Thesis project entitled Multiple Scale Image Analysis to the Workshop on Blast Fragmentation conference at Laurentian University in Sudbury.

July 1994

### **Noranda Technology Center**

**Montreal Quebec**

*Programmer/Operations Site Support*

Noranda Technology Center was Noranda's central research and development facility based in Pointe Claire Quebec.

Developer on Noranda's Amine (see <http://www.flairbase.com>) system – built first versions of Section Cutting and Blastcad 3D blasting layout modules.

Modernised Noranda's survey system, under contract created an AutoCAD based SQL database interface for Noranda's MSURVEY (Mine Survey) system using AutoLISP.

Conducted site visits to Winston Lake and Heath Steele for computer network servicing, and mine employee training – managed 3d mine digitization project at Heath Steele

Installed and configured the Gemcom Geological Modelling software at Heath Steele, and ported all diamond drillhole information into the system from the Unix based Cadmine system – a process that lasted a week, and involved several thousand drill holes.

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## PROJECT RELATED EXPERIENCE

### **BST Accounting System Conversion**

**Calgary, Alberta**

**Matrix Solutions, June 2005 – July 2007**

Convinced management of the need to replace corporate legacy accounting system. Researched systems based on fit to Matrix' business requirements, and presented contenders to the selection committee who chose a system (BST [www.bstglobal.com](http://www.bstglobal.com)) from 3 finalists. Lead successful implementation of new accounting system with no downtime or impact to the operation of the business.

### **Matrix Solutions Corporate Intranet**

**Calgary, Alberta**

**Matrix Solutions, June 2005 – Ongoing**

The Matrix Intranet will become the central presentation layer for all core Matrix business applications. Researched and selected content management system for Matrix Intranet. Configured base system and setup tools such as automated news aggregator. Trained core Intranet site managers in operation and maintenance of the system. Developed and Implemented several systems based on Intranet and Windows Workflow FX for collecting and routing information based on workflow rules.

### **Matrix Solutions Network Restructuring**

**Calgary, Alberta**

**Matrix Solutions, October 2005 – August 2006**

Brought in Phil Gee CEO of Wireless Edge to re-design Matrix' network to support 500+ staff. Hired and managed team to convert network over to new design: key goal was to accomplish network restructuring with no impact or downtime during core business hours. Part of this process was moving all Matrix business servers over to the Q9 ([www.q9.com](http://www.q9.com)) hosting facility, ensuring no downtime during business hours and no loss of data or damage to equipment. Detailed planning and risk mitigation was done prior to the move and network restructuring. Project was accomplished with only 15 min of downtime during the entire scope of work.

### **Matrix Corporate Website Rebuild**

**Calgary, Alberta**

**Matrix Solutions, Jan 2006 – April 2006**

Working with Matrix Principles, brought in Evolve.com to re-design Matrix corporate website. Engine was built using PHP, MySQL running on Linux open source tools as proof of concept of usage of open source at Matrix. Project was tightly managed using Agile development methodology to get results in minimal time with minimal cost. Complete graphic design and systems development were done on a tight budget with a very short turnaround. Had to manage expectations of Principle team according to the .

### **Bullet Time Time Management System**

**Calgary, Alberta**

**Matrix Solutions, Feb 2005 – April 2005**

Developed Bullet Time 'Strangler' (<http://www.martinfowler.com/bliki/StranglerApplication.html>) application to interface to legacy Matrix accounting system. The legacy system was designed to support 25 users, and the company had grown to 100 people by that point. The system was beginning to time out and fail causing major network and database issues. Due to the complexity involved in replacing an accounting system, an interim solution was required to keep the system running until such time as a suitable replacement found and implemented.

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## **Upshot Database Downloader Contract, Oct 2005 – April 2005**

**Calgary, Alberta**

C#, SQL server, Upshot XML Api

Built application to extract data from webservice based database. Upshot is a CRM (customer relationship management) system that has an XML api and data definition schema associated with it. The client wanted to have a local copy of their CRM data to be able to perform data mining against the information. The system used the XML Schema from the API to construct a local version of the database automatically. The engine had to be capable of keeping the local version of the database up to date as the users made modifications to the remote database. The application would check the local copy of the database against the schema of the remote database, synchronize the data definitions if required, then download all the latest data.

## **Three Sisters Project Borehole Data Capture Golder Associates 2005**

**Calgary, Alberta**

C#, infopath

The Three Sisters project involved an extensive amount of drilling in the Canmore area. Keeping track of the drilling results and getting the information back to the office was originally being done with spreadsheets, which proved to be difficult to keep track of and manage. The information in the spreadsheets was also very difficult to extract.

The goal was to build an easy to use system to automatically assign and track borehole numbers so that field staff could 'check out' borehole logs, drill and log holes and transmit the data back to the senior engineers who would then review, and approve the data. When the data was approved, it was automatically inserted into the borehole database, which was then imported into the 3D model by the drafting team. The project engineers could then use the borehole data to re-interpret the mine models.

Pitched system to senior management, designed it and managed project team through constructing and delivering system to Geotechnical Engineering team.

## **Three Sisters Project 3D Mine Model Golder Associates 2004-2005**

**Calgary, Alberta**

Amine, AutoCAD, 3D Studio, ESRI, C#, Project Management

Lead the construction of a complete 3d mine model of the coal seams and mines underlying the Three Sisters project. Selected the Amine (see below) 3d mine modelling system as the best overall tool for the cost for the job as it allowed a team of people the ability to work on a single data set. Built models from old mine plans and geological interpretation. Used section tools and modelling tools to produce geological sections and 3d interpretations of mines for feeding risk assessment model. Model was also used to target boreholes for mitigating underground mines.

## **Three Sisters Project Mine Subsidence Risk Assessment Golder Associates, 2004**

**Calgary, Alberta**

Goldsim, Probabilistic Modeling, Monte Carlo Simulation

Took over completion of Three Sisters Mine Subsidence project Probabilistic Risk Assessment model: brought model to operational status, and performed runs of model for client. The model was designed to calculate the probability and potential cost of damage caused by subsidence of coal mines underlying the area. Recruited PhD Probabilistic expert to take over further work on the model and transitioned model to new resource.

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## **GKN Digitizing Tool**

**Calgary, Alberta**

### **Golder Associates 2004**

Java, Javascript, ESRI, Java Serverlets

Goal was to extend GKN Golder Knowledge Network tool (see below) to allow users to enter project points, lines and polygons into the system for searching. The mapping extension was built using Javascript and XML on the client side and Java and Java serverlets on the server side. The tool was directly interfaced with an ESRI SDE database engine.

## **Murphy Oil Authorisation for Expense Real Time Spend Capture** **Calgary, Alberta** **Pandell Technology Corp 2003-2004**

.NET, C#, XML, XSLT, DHTML, ASP, TSqL, Sql server 2000, UML, Agile Development

The goal of the system was to capture AFE (Authorization For Expenditure) data in a web-based system, and provide real time reporting on current financial status. The system was developed using C# and XML on the Microsoft .net framework using web service transactions. It featured a full fledged workflow engine, flexible content repository and browser based file and document management tool.

## **Pandell Liquid Intelligence Platform Migration**

**Calgary, Alberta**

### **Pandell Technology Corp, 2001-2003**

.NET, C#, XML, XSLT, DHTML, ASP, TSqL, Sql Server 2000, Agile Development

Migrating Pandell Liquid Intelligence platform from ASP/COM based model to Microsoft .net framework. The initiative was run using the Agile development methodology, and extreme programming techniques. Involved writing SQL server stored procedures through the business layer to designing and building a full-featured browser based file manager using object methodologies under the direction of the Pandell Liquid Intelligence Product Manager.

## **Golder Knowledge Network**

**Calgary, Alberta**

### **Pandell Technology Corp, 2002**

Ajax, XML, XSLT, DHTML, ASP, TSqL, Sql server 2000, Agile Development

The system integrated an innovated browser based expert knowledge searching application with Golder's ESRI based GIS engine – in addition to the Golder accounting system and exchange server. Lead developer on team which built and deployed the system to Golder in August 2002. Application won the 2002 Alberta E-Business Leadership Award in the B2B category.

## **Ford Motor Corporation Drawing Management System**

**Calgary, Alberta**

### **Pandell Technology Corp, 2001**

Ajax, XML, XSLT, DHTML, ASP, TSqL, Sql server 2000

This system is a full featured document control system with check in/out versioning capability designed to facilitate the exchange of CAD drawings between Ford and its partners. It is presently hosted in ASP model at Pandell and manages in excess of 12,000 CAD drawings. Features full drawing indexer and browser based management tools

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**Synergy Series Document Portal Product**  
**Syncrude Extraction Division Intranet**  
**Syncrude Utilities Division Intranet**  
**Bennett Jones Intranet**

**Calgary, Alberta**  
**Fort McMurray**  
**Fort McMurray**  
**Calgary Alberta**

**Pandell Technology Corp, 1998-2003**

Ajax, XML, XSLT, DHTML, ASP, TSql, Sql server 2000, COM, VB

Developed and managed the deployment to Alberta Treasury Branches (2 installations), Bennett Jones (1 installation) and Syncrude Extraction and Utilities divisions (2000+ users). Aggregated feedback from clients on Synergy Portal Product, filtered support requests into bug fixes vs new feature requests and balanced client needs against the version development timetable. Managed client expectations and ensured customer satisfaction with the product. Co-ordinated on-site support and maintenance of the Synergy product in compliance with stringent requirements of production operations – in particular Syncrude installations.

**Autodesk Sales Tracking System**

**Calgary, Alberta**

**Pandell Technology Corp, 2000**

XML, XSLT, DHTML, Tsql, Sql Server , ASP

Application designed to capture and track sales of AutoDESK product from remote sales team via a website. System produced sales statistics and managed information regarding software keys. It also handled

**ARCS Asset Recovery System for Alberta Treasury Branches**

**Calgary, Alberta**

**Pandell Technology Corp, August 1999-Jan 2000**

XML, XSLT, DHTML, Tsql, Sql Server

Captured, tracked and managed delinquent loan information for ATB's bank branches. The application was interfaced with ATB's mainframe system for account synchronisation. A comprehensive set of search tools was provided to allow users to find and analyse client data to allow bank lenders to check on status of previous loans from clients. Project was a year 2000 conversion and had a very tight schedule, and fixed completion date.

**Petro Canada Intranet Project**

**Calgary, Alberta**

**SHL Systemhouse 1998**

XML, XSLT, ASP, VB, COM, HTML, Oracle, Documentum

Intranet project for Petro-Canada –proof of concept intranet system that integrated a dynamic database driven intranet system. Content display engine was integrated with Petro-Canada's Documentum system using a VB object.

**Babcox and Wilcox Nuclear Steam Generator Visualisation**

**Toronto Ontario**

**Kuhn and Associates 1997**

3D studio Max, Photoshop, PVR Recorder, AutoCAD

Animation to show competitive advantages of the Babcock and Wilcox designed steam generator in terms of reducing blow outs and cavitation issues through advanced precision design. Incorporated output from FEA analysis tools to illustrate points regarding stress.

**Mold Masters Injection Mold Visualisation**

**Toronto Ontario**

**Kuhn and Associates 1997**

3D studio Max, Photoshop, PVR Recorder, AutoCAD

Modelled and animated sequence demonstrating principles behind the cooling system of a new type of injection mold nozzle.

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## **IndustryLink Industry Search Engine** **Toronto Ontario**

### **Kuhn and Associates 1996**

IIS, ASP, SQL server

First full-fledged web application launched in 1996 – IndustryLink offered a dynamic list of industrial corporations. It was construed on the first version of Microsoft's ASP and IIS systems for building web sites. It is still in operation <http://www.industrylink.com>

## **ATS Robotics Animation Visualisation** **Toronto Ontario**

### **Kuhn and Associates 1996**

3D studio Max, Photoshop, PVR Recorder, AutoCAD

Building a detailed animation sequence of the robot assembly line illustrating its operation and

## **Bombardier Global Express Jet Visualisation** **Toronto Ontario**

### **Kuhn and Associates 1996**

3D studio Max, Photoshop, PVR Recorder, AutoCAD

Animation of Global Express Jet flying used at major trade show launch of manufacture of Global Express Jet. Showed design of aircraft, and aircraft in operation using simulated clouds etc.

## **ICI Explosives Mine Fly Through/Presentation Consulting 1995** **Sudbury Ontario**

3D studio Max, Photoshop, PVR Recorder, AutoCAD

Mine fly-in animation sequence to introduce presentation for sales pitch to senior Inco Executives from ICI explosives team.

## **Amine 3D Mine Design System Training** **Craig/Onaping Mine Falconbridge** **Northern Survey 1995**

AutoCAD, AutoLISP

Implemented formal training program at Falconbridge's training centre - trained 45 engineering/geology employees, over 8 modules - which made use of government compliant material, tests and computer based presentation slides

## **Amine System Documentation Project** **North Bay Ontario** **Northern Survey 1995**

Amine, AutoCAD, AutoLISP

Wrote formal documentation for the AMINE system – 200 page manual outlining all aspects of the system. The documentation featured full screenshots of the application, detailed descriptions of all features and functionality, and sample use-cases for application of the tools to real-world mining problems

## **WipFrag Multiple Image Analysis Project** **Orangeville Ontario** **Franklin Geotechnical LTD 1995**

Turbo C++

Developed a Turbo C++ C-Language routine to combine data from multiple image analysis to produce an overall size distribution curve for the Blasting Fragmentation Analysis project – which was subsequently incorporated into the WipFrag product (<http://www.wipware.com>)

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## **Amine 3D Mine Design System Consulting 1989-1995**

**Montreal Quebec**

AutoLISP, AutoCAD, C

Developer on Noranda's Amine (see <http://www.flairbase.com>) system – built the original Section Cutting and Blastcad 3D blasting layout modules. Modernised Noranda's survey system, under contract created an AutoCAD based SQL database interface for Noranda's MSURVEY (Mine Survey) system using AutoLISP. Travelled to mine sites around Canada (Winston Lake, Hemlo, Heath Steele, Westmine, Ansil, Lac Shortt) installing and configuring the system at the sites. Involved building 3d models of the mines, customizing system to local mine requirements, training Noranda mine staff in the application and operation of the system.

## **Software Experience and Technical Skills**

- **Programming Languages and Tools:** C#, Ajax, XML, XSLT, HTML, T-SQL, AutoLisp, PHP, SISS, Windows Workflow Foundation
- **Databases:** Deep knowledge of SQL server – including stored procedure programming, XML querying, SQL integration Studio, MySQL
- **Operating Systems:** Windows (2003, 2000, and XP), Linux (Ubuntu, Fedora Core,) OSX, BSD
- **Editing / Publishing Systems:** MS Office, FrontPage, Photoshop, 3D studio Max, GIMP

## **Other Accomplishments/Hobbies:**

- **Sports:**
  - Wing Chun Kung Fu – Intermediate Level 2 – placed 3<sup>rd</sup> in national Sanshou championships in Vancouver 2002
  - Mountain Biking – Freeriding, placed 2<sup>nd</sup> and 3<sup>rd</sup> in 24 hours of adrenaline 5 man team.
- **Photography:** Photographs published in Outdoor Canada, and MBR (British) magazines – exhibit at Cadence Café in Calgary
- **Music:** Produced 2 CDs, played live gigs
- **Standup Comedy:** Took Stand-up and physical comedy courses (Cheers Project and Green Fools) – performed live at Yuk Yuks and other venues, MC and performed standup at Matrix Corporate Events
- **Rebuilt 1985 Vanagon Westfalia:** Restored a 1985 Vanagon Westfalia - bodywork, interior and replacing van's engine with a rebuilt engine