

# Timothy Michael Varley

27 Pleasant Street, Holliston, MA 01746, USA, phone: 617 721 2495

---

**OBJECTIVE** I am seeking a senior technical position where my many years of global experience designing, managing and developing solutions for the financial services industry will be utilized within a team of highly motivated and high skilled individuals.

**CAREER ACHIEVEMENTS** Inventor of a multiple channel banking solution (US Pat 6,119,104). This concept and design won a Smithsonian award for Innovation in Financial Services (nominated by Bill Gates). The design is now in the permanent archives of the Smithsonian innovations library.

Asked by Microsoft to assist them with their strategy in financial services. I was a contributing member of the DNA/FS Advisory Council and the DNA/FS Schema Working Group.

Led the team that developed a high performance and highly scalable web based portfolio management system.

Designed and implemented portfolio investment algorithms in C++ and MatLab. The algorithms utilized advanced risk modeling and portfolio optimization techniques to suggest the optimum trades. The algorithms consider and rank numerous trade scenarios, working towards the investment goal whilst adhering to numerous restrictions (Compliance, Preferences, Investment Mandates etc.).

Created a task distribution infrastructure that facilitates efficient message routing between many servers within a processing grid. The processing grid scales up and out effortlessly, the system self tunes by dynamically optimizing its load-balancing algorithm.

Lead the first international project for AIT PLC, a UK based company, by bringing a team to Cleveland, OH. The success of that project led to the formation of AIT (USA) Inc, a subsidiary of AIT Plc. I assisted the company's formation by defining the technical strategy for all North America operations.

I developed some of the core components used across the AIT product suite (Web UI Framework, Website content management system, Browser based CTI (Ajax based), XML message transport and distribution, task matching and workflow modeling).

Initiated advanced research projects in business and technical arenas. Some of these projects proved beneficial, realizing significant income and opportunity for AIT.

As Senior Systems Designer/Programming Specialist at Dun and Bradstreet Europe, I led several teams through the design and development of a customizable N-Tier office automation solution for all European offices.

## Experience

*Founder/President  
Holliston, MA*

*Moth Systems LLC  
May 2008-Present*

I am the founder of Moth Systems LLC, a consultancy firm that offers high quality engineering services to the financial services industry. This firm also has an Internet division that provides Internet application development and hosting services to many industries.

*Senior Software Architect  
Boston, MA*

*Novell  
Sep 2008 - Nov 2008*

I was part of an advanced research team engaged to develop concepts and proposals for a innovative web based collaboration services. The system is a ground up development intended to replace Novell's current collaboration services.

The research culminating in a set of proposals for a next generation system. We also developed a working website prototype which extensive javascript interaction and dynamic content (Ajax).

*Senior Software Architect  
Boston, MA*

*CheckFree Investment Services  
August 2007-May 2008*

CheckFree Investment Services purchased Upstream Technologies in August of 2007.

As Senior Software Architect of Advanced Trading Solutions for CheckFree Investment Services, I held a key role in the responsible for the integration of the Upstream systems and the CheckFree infrastructure. This included architecting, planning and developing a new C#/ASP.NET web site.

I training and mentored new development, QA and management personal on the Upstream system.

Introduced Microsoft Team Server to the development cycle, replacing a number of older non connected systems.

I provided valuable contributions to the sales and support deliverables. The clients and account managers consulted with me to validate and refine requirement on many projects.

*VP of Engineering, Research and  
Investment Group  
Cleveland, OH and Boston, MA*

*Upstream Technologies  
Feb 2002-August 2007*

I implemented the production version of Upstream's portfolio construction algorithms. I led the research team, leading us through the transition from an academic prototype to a production implementation.

I helped the quantitative researchers refine the algorithms (originally implemented in MatLab) by applying engineering techniques to the environment and closely mentoring their development effort.

I invented a processing architecture that enables the system to be highly scalable.

The quality of the results from the algorithms and the flexibility of the architecture helped Upstream become the market leader in browser based SMA portfolio management.

I relocated to the Boston headquarters in 2004 to take on a more central role in the quantitative and engineering teams.

I created and led the effort to adopt development standards and techniques across all of the Upstream engineering teams. The adoption of these practices led to increased product performance, shortened development cycles and increased quality. I trained staff and showed the benefits of an Agile development methodology.

*Lead Technical Architect  
Cleveland, OH*

*AIT US Inc  
Dec 1995 - Jan 2002*

As Lead Technical Architect for AIT US based operations, I defined the US technical strategy and assisted with product road map. I led the architecture team responsible for developing components essential to the strategy.

As an experienced and regarded senior technical resource I advised all of the project teams.

I was one of the inventors and lead technical architect for the 'Composite Banking Desktop' solution for KeyCorp. This design patented by KeyCorp, listing me as an inventor. The design was used as the basis for all AIT banking project worldwide. The design won a Smithsonian Award for Innovation in Financial Services (nomination by Bill Gates)

I was invited by Microsoft to advise them on their financial services technical strategy via the DNA/FS council. I was also invited to contribute to the DNA/FS Schema Steering committee.

I was chosen to lead the first international project (KeyCorp in Cleveland) by the group CEO.

*Lead Technical Architect/Principal Systems Engineer*

*AIT PLC*

*Henley-on-Thames, UK*

*Apr 1993- Dec 1995*

I helped AIT adopt and implement object orientated development technologies.

I developed coding standards, build procedures and held design reviews for many projects.

I designed several of AIT's products and consulted on many others.

Some of products I developed include for AIT PLC:

- Distributed stock trading system
- Desk (Trading Floor) trading system
- Resilient equity pricing system
- Scalable order processing system

*Senior Systems Designer Programming Specialist*

*Dun and Bradstreet*

*High Wycombe, UK*

*Jan 1989 - Mar 1993*

As Senior Systems Designer/Programming Specialist, I designed and implemented a distributed N-Tier system that was used in all of the European offices.

This involved the creation of communication architecture that distributed application logic across tiers and provided resilient data transfer.

The system was multi currency and multi language and allowed localized customization by the users.

*Systems Engineer*

*GPT Datasystems*

*Maidenhead, UK*

*July 1987 - Dec 1988*

As systems engineer, I designed and developed and support various embedded protocol converters and access points for the travel and telecommunications industries.

## **SKILLS**

*Programming Languages:* C++, C#, C, VisualBasic, Matlab, SQL, XML, XSL, XSD, Perl, PHP, HTML, Javascript, VBScript, PowerShell, Unix Script (born,korn,ksh etc.), Assembler.

*Technologies:* .NET, Standard C++Library, DoJo, jQuery, Generic programming, Internet Technologies (HTTP, FTP etc), Microsoft technologies (MFC, .NET, ATL, COM, GDI, MSMQ etc.), Apache, SQLServer, MySQL, sed, awk, yacc.

*Operating Systems:* Windows, OS X, Linux, Unix

*Tools:* L<sup>A</sup>T<sub>E</sub>X, Microsoft Office, Microsoft Team, Rational Suite, Visio, Microsoft development suite, gcc, csv, Subversion, Tortoise, gnuplot, GIMP, Photoshop etc.

*Others:* Detailed and thorough designs for large and small systems, Creation and promotion of best in class development practices, Architecture design and implementation of enterprise systems, Multi faceted development skills, Requirements creation and analysis, Strategic technical planning, Workflow and business modeling, Product creation, Optimization, Product Enhancement, Technical writing, Creative problem solving, Technical Team Leadership/Mentoring, Project Management, Pre-Sales and Marketing Support

**EDUCATION**      Brookes University, Oxford, UK  
HNC in Computer Science, June 1987

**OTHER**            LinkedIn profile with recommendations: <http://www.linkedin.com/in/timothyvarley>  
WebSite: <http://www.mothsystems.com>