

Andrew "Nuke" Stollak

Summary

Lead IT developer who approaches job requirements as a list of learning objectives. Have not yet found a task that is too difficult. Primary experience is in solving problems quickly and inexpensively, integrating software with other software, and writing software using mathematics and statistics to answer questions. Moderately goofy, and exceedingly moderate.

Professional Experience

isThink, Inc. State College, PA
Co-Founder June 2010-present

- Identified the set of functional requirements not being met by existing copyright protection solutions to combat copyright infringement on the web by using legal and financial pressure after identifying the source of the infringement.
- Developed proprietary video processing technique (patent-pending) in C for use internally and on Amazon's EC2.
- Developed suite of coordinated, distributed web spiders in C#.NET using WCF, defining an interface to allow new spiders to be developed quickly without modifying the primary codebase.
- Initially developed a small suite of video analysis tools as basis for ROI and capacity planning calculations.
- Analyzed requirements to determine feasibility of design given time and cost constraints on a per-project level, and to create a sustainable portfolio of projects for the future.
- ROI and capacity planning development environment: C# using WPF, WMF, AMD/ATI's OpenCL, and MySQL Cluster.
- Production environment: C++ using CUDA and OpenMP libraries, Ubuntu, and MySQL on Amazon's RDS., EC2, and S3. Amazon SQS and SNS tools are in development to replace WCF's functionality. Capacity planning tools being developed in Java.

DecisionPro, Inc. State College, PA
Chief Technology Officer July 2010-present

July 2010-Present: DecisionPro, Inc.

- Designed and documented a new software architecture for modularity of analytical models, agnostic data access, and to provide for a code base that can handle multiple front ends: desktop, cloud, web, and mobile.
- Work closely with existing clients to help define improvements to product offerings, define requirements, determine feasibility of design within time and cost constraints, focusing on target environments, competitive offerings, cannibalization, and performance criteria.
- Co-developed a new method for mapping 3D coordinates to the original set of dimensions and vice-versa, post-analysis. Developed C# .NET beta code and migrated it to VB .NET production code, both using a C/C++ 3D rendering DLL in DirectX.

E.B. Jacobs, LLC State College, PA
IT and Software Manager June, 2011-March, 2012

- Saved days of regularly hiring temporary staff by automating large reporting and mailing process in VB .NET to read intermediate reports in Word.
- Kept staff of 15 smiling while migrating their desktops, phones, and shared applications.
- Maintained and enhanced codebase for primary business applications (VB ASP.NET, WPF, Telerik libraries)
- Normalized and tuned SQL Server 2003 tables for these applications.
- Maintained Exchange, Sharepoint, SQL Server 2003, IIS, Windows Server, VMware, and ReadyNAS.
- Saved \$1000 by reconfiguring network equipment for better load balancing, primarily Dell PowerConnect switches.

The Pennsylvania State University - ISBM at Smeal / DecisionPro, Inc University Park, PA
Sr. Project Associate Manager / Chief Technology Officer Sept. 2000-June 2010

- Lead developer of a software suite integrated into Excel. Middleware and some business calculations in VB .NET, other business calculations in legacy C and Fortran DLLs.
- Optimized customer services processes to reduce the number of incidents, minimize the time spent on each one, and gain product usage information during each incident to drive further project planning.
- Provided advice, guidance, and team leadership to other developers and development teams working on various components of the Marketing Engineering software suite, with bi-weekly milestones.
- Designed, and developed or supervised the development of several Web-based interactive marketing models.
- Collaborated with VP of Product Design on writing help documentation and technical appendices for the software.
- Coordinated with project work team at Rheal Software in India to convert C/C++ software into a VB.NET Excel add-in.
- Developed interfaces using Windows GDI, GDI+, Windows Forms, WPF, Direct3D, Java servlets, and JSP.
- Developed ETL methods to format external data for our software models.
- Implemented variety of encryption algorithms and security models, each chosen to match business and technical needs.
- Developed and deployed Rational Suite test suites using Rational Robot and PurifyPlus to ensure robust, efficient code.
- Designed and supervised the development of XML-based WDDX exchange with a distribution channel to integrate their purchase system with our license system.
- Designed, managed, and co-developed migration of Win32 apps to the web via JSP, Java Servlets & Applets, ColdFusion, Perl, and Win32 CGI.

The Pennsylvania State University - RIIT Group at Smeal
Internet Technologist/ Research Programmer

University Park, PA
Feb 1999-Sept. 2000

- Administrator for iPlanet suite of servers (web, POP3, IMAP, LDAP, news), IBM DB2 database server, Microsoft SQL Server, and Allaire Cold Fusion server on AIX, NT, Solaris, and Irix. Hardware included two IBM RS/6000 F-50s, one IBM RS/6000 H-80, two IBM SSA arrays, a SGI Indy, and a Sun E450.
- Supervised four full-time staff members and several part-time students, providing technical guidance and helping to reduce stress for those in both entry-level and experienced positions, from systems administration to graphic design.
- Instructed PSU course MIS 431, *Introduction to Database Design and Application*, using Oracle. Wrote the content for the PL/SQL portion of the course which was used by the other instructor and the professor.
- Managed and assisted in Smeal web site redesign, including systems infrastructure, database and file system design, maintenance tools, HTML/JS templates, and multimedia applications. Provided related internal technology training.
- Co-developed multithreaded, multi-tier Java-based system for streaming financial data Bayesian modeling.
- Secured systems under Unix and NT—using DCE/DFS, SSH, PGP, tcp_wrappers—for systems containing student data.
- Managed staff and students in projects using HTML, CSS2, client-side and server-side JavaScript, and SQL.
- Designed and implemented web application deployment and maintenance strategies for the Smeal Web site.
- Led the design and development of technical components of multi-tier online database-enabled Web applications: Center for Logistics Research library, the Internship Office's job placement, and the Monster project tracking database. Created RAD libraries for myself and coworkers for these projects.
- DBA for IBM DB2 and Microsoft SQL Server installations on the web server and data warehouse.
- Developed 3D content for RIIT Group projects in 3DS Studio MAX.

The Pennsylvania State University - ISBM at Smeal
Senior Applications Programmer / Analyst

University Park, PA
March 1994 – Feb. 1999

- Co-managed and contributed to software and images in Marketing Engineering by Drs. Gary L. Lilien and Arvind Rangaswamy. Assisted with "Marketing Tools for Marketing Managers" executive course
- Extended Teknowledge's M.4 knowledge-base software; created XLA in C/C++ for multinomial logit analysis.
- Implemented online ISBM contact and registration database application with DB2 and Netscape SuiteSpot.

Independent Consulting

Lykens Markets

Port Matilda, Beechcreek, and Bellefonte, PA July 2013-current.

- Saved over \$6k/yr in materials and refunded orders by identifying problems and developing software to simplify purchases.

- Developed kiosk food ordering and kitchen fulfillment systems using C# and SQL Server 2013 Express.
- Kept costs under \$3k/store in equipment by using HP all-in-one desktop touchscreens with Star Micronics thermal receipt printers, and ASUS routers configured for VPN access for remote monitoring, configuration, and reporting.
- With a partner, ordered equipment and deployed this package in three stores.
- Phase 2 includes writing a full POS system, including bar code scanning features and reporting.

Red Zone Enterprises

Port Matilda, PA 2003-current.

- Decreased time spent on customer service problems and increased profits by improving logistics for fewer refunded orders.
- Developed a suite of C# .NET, MFC/GDI+, and VBA tools supported by a Microsoft Access database.
- Assisted legal compliance by performing statistical analysis on subcontractor's work to look for anomalies.
- Converted suite of tools developed over time to a better-coordinated suite of C# tools using MySQL; added kiosk support.
- Created data warehouse spanning eight years of evolving data schemas.
- Developed DB-driven Javascript/CSS page for a web photo gallery.
- Developed mobile and desktop friendly CSS styles for PHP/MySQL-driven scheduling app.

EPIC Compliance

San Francisco, CA May 2010-June 2010

- Wrote C# app to integrate Excel with the externally-developed TourSolver library for scheduling multiple optimized routes.

AEC Bidding

State College, PA Nov. 2000-July 2001

- Created ColdFusion application for civil engineering project bids using CSS layout.

Consolidated Transportation Management Services

Duluth, GA July-Sept 2000

- Developed MFC/ADO (Oracle) app to pull billing auditing data out of Bill-of-Lading and Std. Carrier Alpha Code data.

AromaWorks

New York, NY January-July 1999

- Sole C++ developer for aromatherapy knowledge base with database back-end support using MFC and ODBC (Access).

Avicet Commerce

San Francisco, CA March-May 1998

- Partner and sole developer for producing a real-time bidding system with QuickServer, C++, MS SQL, Netscape Enterprise Server, Java, and HTML.

Technical Summary

Computer systems integration, multi-tier systems, multithreading, design patterns, network and database programming, numerical computing, 2D and 3D graphics programming, neural network and knowledge-base artificial intelligence. Total of 31 years programming experience, 27 in ANSI C and 21 in Win16/32/64 C/C++ and later C# and VB .NET, 19 professionally. **Languages:** C/C++ (Win32/64, OLE, COM, ODBC, OLEDB, MFC, GDI/GDI+, Direct3D, OpenGL, COM+, BSD sockets, inline assembly (Intel, MSVC, gcc)), VB.NET and C#.NET (XML, Winforms, WPF, ASP.NET, LINQ, WCF, D3DImage), FORTRAN, Java (applets, servlets, EJB, JSP, applications, JDBC, Hadoop) & JavaScript (incl. jQuery), web standards (HTML/XHTML/DHTML/CSS, XML/XSL, WML/WAP, SOAP, REST), PHP, Perl/Perl-DBI, Ruby on Rails, Cold Fusion, ActionScript (Flash, Flex, AIR), SQL (Microsoft SQL Server, IBM DB2, Oracle, MySQL, SQLite), shell scripting languages (VBScript, VBA, Perl, bash, ksh, csh), Arduino, and Parallax BasicSTAMP. **Desktop Software:** Microsoft Visual Studio (v1.52c to current), ERwin, Eclipse, gdb, Anjuta, Adobe products (Photoshop 5 to current), Cakewalk SONAR, 3D Studio MAX, and Microsoft Office development. *For secondary experience and skills (e.g. Facebook API, Matlab, SAS, Python, Jason/AgentSpeak, iPhone, X10, LISP, GTK), please ask.*

Education

Pennsylvania State University

University Park, PA

B.S. in Computer Science

1992 - 1999

- Graduate classes in computer science, mathematics, statistics, and marketing during B.S. degree and as needed to improve my abilities at work. (algorithms, numerical computing, multivariate analysis, and measure theory) Undergraduate electives focused on computer hardware and engineering.

Other Interests

Musician: Composed and performed pieces and parts for *No Refund Theater* (Penn State student theater), *Jealous Sun* (local band), *Graphic* (local band), and *Comedy Whorehouse* (local comedy troupe). Former keyboardist for *Panic Society*. The Phyrst's Open Mic Night coordinator.

Photographer: Published in *Spite*, and *Voices* local magazines, local band Finster's *Wish I Had A Camera* album cover. Also have done photos for weddings and the professional Web pages of many local performers. Shot stills and video for Lowjack's music video. Shot on the field of Beaver Stadium for PSU's 2008 homecoming game against Michigan.