NICK WESEMAN

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**TECHNICAL Languages:** Java, Python, C# .NET, JavaScript, SQL, ASP.NET, Oracle ADF 10g/11g, C, C++, **SKILLS** Visual Basic (6/.NET), Objective-C, Groovy, UML, HTML, XML, XHTML, XSLT, JSON, AJAX,

CSS, LESS, Clojure, VBA, Bash, PHP, Delphi, PL/pgSQL, MySQL, Python, Perl, Ruby on Rails, Haskell, LISP, VHDL, PathMATE

**Operating Systems:** Windows, Linux/Unix, macOS, iOS, Android

**Software:** IntelliJ**,** Eclipse, Visual Studio, Vim, Rational Software Modeler & Architect, JDeveloper, ClearCase, SQL Server, Agitator, Clover, DOORS, Solipsys TDF/MSCT, Klocwork, EMMA, WCF, WPF, Apache, LAMP, WAMP, ClearQuest, Lucy, LuciadMap, Quick Test Professional, Oracle, 3D Studio Max, Siebel Tools, Ant, Maven, Gradle, Git, Mercurial

**Certifications:** DoD SECRET Clearance, Six Sigma, Scrum Master, Top 1% on Stack Overflow

**PROFESSIONAL Two Sigma Investments,** Houston, TX

**EXPERIENCE *Software Engineer* 2012 - Present**

Two Sigma is a Hedge Fund and technology company that applies rigorous scientific based big data approaches to investment management (think Google meets Hedge Fund).

**Accounting Engineering (Lead)**

Accounting Engineering team is responsible for all the books and records for the firm including fund, investor and regulatory reporting.

* Serve as scrum master for a Java project to completely rewrite the monthly reapportionment process including processing subscriptions/redemptions, fee crystallization, and dividends.
* Create a front-end web app written in AngularJS to generate participation interest statements.
* Design and implement a process to automatically generate quarterly regulatory filings using Java, JAXB, and XJC turning a manual process requiring 2 people for 1 week into seconds.
* Develop a reconciliation framework in Python and pandas that turned a manual reconciliation process into an exception-based automatic process.
* Implemented workflow in Bonitasoft using Groovy and SQL for automatic payment processing.

**Corporate Platforms**

Corporate Platforms serves and maintains data to groups throughout the firm.

* Built a set of RESTful web services in Java, Jetty, Jackson, Guice, Hibernate, and Jersey that provided the “golden” source of data for balance sheet and income statement data to the firm.

**Treasury Engineering (Lead)**

Treasury Engineering team is responsible for all incoming and outgoing wire transfers, cash, margin, and broker management.

* Developed an automatic configuration-based data import framework using Java & Clojure which downloads thousands of files via SFTP and transforms them into a SQL Server database.
* Constructed a custom Windows Authentication Provider in C# using cross-forest domain trusts greatly increasing security by forcing all wire transactions to flow through a separate domain.
* Improved custom margin management and portfolio rebalancing system in VBA & SQL.
* Created treasury management solution in Java and Clojure using Hazeltree which provides automated cash, collateral, counterparty, and margin management.

**Corporate Engineering**

Corporate Engineering is responsible for all areas of Middle and Back Office including Operations,

Treasury, Accounting, Regulatory Reporting, Data Services, and Broker Management.

* Developed proprietary trading models in Python using core, high frequency trading, and market making techniques which aimed to capitalize on irrational differences in the bid-ask spread.

**Intergraph,** Huntsville, AL

***Senior Web Application Software Consultant* 2011 - 2012**

Intergraph is a top 100 software company in the world specializing in GIS and image processing applications.

**E-Support**

E-Support is an Oracle Fusion ADF web application which serves as a customer and employee portal for thousands of users worldwide.

* Served as Oracle ADF / Java EE subject matter expert and led all development activities.
* Developed web front-end in JSF, AJAX, and ADF Faces.
* Developed Java EE back-end in ADF BC, SOAP Web Services, and SQL Server DB.
* Implemented Oracle SOA between Oracle Application Server and Siebel Enterprise.
* Improved the existing manual build/deploy process that ran in hours to an entirely automated continuous integration process using Ant, JUnit, Cruise Control, & OJDeploy to run in minutes.
* Improved proprietary search algorithm to increase search results performance by 75%.

**E-License**

E-License is an ASP.NET MVC 3 web application which allows order and license administration.

* Developed ASP.NET MVC 3 web application using C#, VB, Razor, and JavaScript (jQuery) in an Agile environment using Scrum processes.
* Used Test-driven development & MS Test to develop custom key-cutter to automatically generate license keys from order information in Dynamics GP (Great Plains) via BizTalk.

**Raytheon,** Huntsville, AL

***Senior Software Engineer* 2006 – 2011**

Raytheon is a major U.S. defense contractor who specializes in military weapons and commercial electronics. They are the world's largest producer of guided missiles.

**PMET**

Patriot Multi-Echelon Trainer (PMET) is a simulation training program which incorporates 3D virtualization (video game) technology to teach soldiers how to use and maintain Patriot systems.

* Developed 3D virtualization environment utilizing the XNA game engine and C#.NET.
* Produced mobile iPhone & iPad iOS 3D virtual application using Unity 3D, and developed web server back-end in Ruby on Rails which provided soldiers with training assistance and situational awareness.
* Worked directly with Army customers at Ft Sill, OK and Boston, MA to gather requirements and evaluate future customer needs.
* Worked with studio design team in San Francisco, CA to translate high-resolution photographs into a 3D-model using 3D Studio Max and a custom content pipeline.

**ACCS Data**

Air Command & Control System Data (ACCS Data) is the Java EE backend data stored for all NATO countries.

* Filled a critical Java EE need by accepting a 6-month assignment in Paris, France.
* Performed back-end Java development and wrote server side business logic atop a proprietary object-relational mapping / container-managed persistence framework deployed on a Weblogic application server.
* Worked alongside French and American software engineers to develop an n-tier Client/Server Java EE application utilizing EJB and XML run on a Solaris server.

**ePOMT**

Electronic Patriot Organizational Maintenance Trainer (ePOMT) is a simulation training program for the Japanese Air Force to teach soldiers how to use and maintain Patriot systems.

* Led ePOMT software team of seven engineers, as well as oversaw all design, integration, testing, and successful delivery to customer in Hamamatsu, Japan.
* Developed training simulation application in VB.NET to run on an RT3 Windows 7 machine.
* Wrote data access layer to connect VB.NET to a Microsoft Access database using ODBC.
* Administered ClearCase source control database, executed merges, and created automatic nightly team builds written in Maven.

**ACCS GIS**

Air Command & Control System – Geographic Info System (ACCS GIS) is a NATO command

and control application for viewing of non real-time and real-time objects on a situational display.

* Developed Java code products for the GIS by utilizing Luciad Map framework using MVC architecture to develop specialized map functions, custom controllers, and layer management.
* Executed unit test, software and system integration in Huntsville, AL, and Los Angeles, CA.
* Developed unified configuration and testing plan for the software team to encompass the build process (Ant), unit testing (Junit), and static code analysis using Klocwork and EMMA.

**SRP MWC**

Surveillance Radar Program – Missile Warning Center (SRP MWC) is a command and control application for the Taiwan Air Force for early warning of ballistic missile attacks.

* Developed Java components for all Battle Planner related modules using OOA/D principles.
* Implemented drawing of objects on a real-time map via a Solipsys Tactical Display Framework.
* Utilized Model Driven Architecture (MDA) by writing platform independent PathMATE action language and creating UML models for use in automatic Java code generation.
* Designed data model, produced data services utilizing JDBC, and provided administration for a Relational PostgreSQL Database run on a Linux server.
* Unit and integration tested software using an automated test generation application (Agitator) and an automated GUI testing tool (Quick Test Professional).
* Traced requirements to software and vice versa in a requirements management tool (DOORS).
* Conducted tactical demonstrations of MWC software for air force generals in Taipei, Taiwan.

**Textron,** Austin, TX

***Software Engineer*** **2005 – 2006**

Textron is an Aerospace and Defense company specializing in geospatial solutions.

* Developed RESTful web services that processed retrieve and response requests for a data distribution system to synchronize real-time mission data across a distributed network for mission planning and battle management using Java, XML & JSON.
* Designed, developed, and maintained a company website using JavaScript, AJAX, CSS, XHTML, PHP, and MySQL.
* Installed, configured, and administered a Linux web server running Apache, PHP, and MySQL.
* Extended a tactical GIS application in C/C++ and C# .NET used for mission planning.

**Aspyr,** Austin, TX

***Systems Engineer*** **2005**

Aspyr is a video game developer specializing in porting video games to macOS and Linux.

* Created and ran test suites using a proprietary testing framework for “Stubbs the Zombie” (credited), a game for Windows, Mac, and X-Box written in C/C++ utilizing the Halo game engine. Won the “Best Bug” award for the game.
* Implement bug fixes in C++ to enhance on-demand caching and collision detection.
* Created and ported various Windows applications to the Mac using Objective-C and Cocoa.

**EDUCATION University of Alabama in Huntsville**, Huntsville, AL. **2008**

M.S. in Computer Science; GPA: 4.0 / 4.0

**University of Texas at Austin,** Austin, TX.  **2006**

B.S. in Computer Science; GPA: 3.90 / 4.0

**OPEN SOURCE •** FrequentOpen Source Software author and contributor.

**SOFTWARE & •** Developed Java, Python, JavaScript, web, and mobile applications (iOS and Android).

**APPS •** Please visit [www.nickweseman.com](http://www.nickweseman.com) for details.