NICK WESEMAN

Lead Software Engineer with over 12 years of experience

TECHNICAL SKILLS

Languages: Java, Python, C# .NET, JavaScript, SQL, ASP.NET, Oracle ADF 10g/11g, C, C++, Visual Basic (6/.NET), Objective-C, Groovy, Ruby on Rails, PHP, HTML, XML, XSLT, JSON, AJAX, CSS, LESS, Clojure, VBA, Bash, Delphi, PL/pgSQL, MySQL, Perl, Haskell, LISP, VHDL

Software: IntelliJ**,** Eclipse, Visual Studio, Vim, Rational Software Modeler & Architect, Unity, 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, Bonitasoft, Lawson, Hazeltree

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

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

PROFESSIONAL EXPERIENCE

TWO SIGMA INVESTMENTS — 2012 – PRESENT

Software Engineer — Houston, TX

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 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 turns a manual reconciliation process into an exception-based automatic process saving 10 hours every month.
- Implement a workflow in Bonitasoft using Groovy and SQL for automatic payment processing.
- Create automated process to interact with Lawson GL to generate and automatically reconcile all incoming and outgoing ACH, Check, and wire transfers replacing a manual daily process requiring multiple people for hundreds of transactions a day.

Treasury Engineering (Lead)

Treasury Engineering is responsible for all incoming and outgoing wire transfers, cash, margin, collateral, 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 improving security by forcing all wire transactions to flow through a separate domain.
- Automated a 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 Platforms
Corporate Platforms serves and maintains centralized 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 all groups in the firm replacing hundreds of disparate manual files and database tables.

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 2011 – 2012

Senior Web Application Software Consultant Huntsville, AL

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

E-Support (Lead)
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 2006 – 2011

Senior Software Engineer Huntsville, AL

Raytheon is the fourth largest U.S. defense contractor, and largest producer of guided missiles in the world, specializing in military weapons and commercial electronics.

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 storage 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 (Lead)
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 2005 – 2006

Software Engineer Austin, TX

Textron is a top 50 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 2005

Systems Engineer Austin, TX

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 SOFTWARE & APPS

Frequent Open Source Software Author and Contributor

- Developed Java, Python, C#, JavaScript, Objective-C, PHP, web, and mobile applications (iOS and Android) with thousands of user downloads.
- Please visit nickweseman.com for details