## ilind@wwidew.net <> +1 414.704.0718 <> in/jasonshareshuman <> Evanston, IL

- Over 20 years developing UML/BPMN Models targeting both technical and business consumers
- Expert in Cybersecurity from both an Implementation and Conceptual/Research Perspective
- Experienced RFI/RFP Technical Writer
- Managed and Mentored Teams from 5 to 25 members
- Led Legacy Transformation efforts at major clients including Guggenheim Partners and Hallmark Data Systems

Technologies and Languages

Technology	Yrs	Clients	Technology	Yrs	Clients
UML	22	Most Clients	Sparx Enterprise Architect	15	Most Clients
Visual Studio .NET -> 2022	22	Most Clients	SQL Server 2000-2016 and SQL Azure	22	Most Clients
C# 1/2/3/4/5/6/7/8/11	22	Most Clients	SQL Server Integration Services (SSIS)	10	Hallmark, Guggenheim, NB, Triton-Tek
ASP.NET Core 2 / 6	7	Bobaloo, StratML	Oracle 8i-12c	6	UAL, NT, Aon
ASP.NET MVC 3/5/6	10	UAL, Hallmark, Guggenheim, NT	IBM DB2	5	Hallmark, NT, Fortis
TypeScript	10	Bobaloo, StratML, UAL, Hallmark	Windows Communication Foundation (WCF)	11	UAL, NT, Aon, Citadel
Web API 2	10	Bobaloo, StartML, UAL, Hallmark	Windows Presentation Foundation (WPF)	15	NB, NT, Aon, Citadel
Microservices Architecture	5	MultiPlex, Bobaloo, StratML	Model-View-ViewModel (MVVM)	15	UAL, Hallmark, NB, NT
HTML / CSS / JavaScript	30	Most Clients NOT A DESIGNER	XML / XSD / XSLT	20	Most Clients
Cosmos DB (Graph)	8	Bobaloo	Cosmos DB (SQL)	8	Bobaloo, StratML
<b>Azure Functions</b>	8	Bobaloo	Azure App Service	8	Lind-I, Bobaloo, StartML
Azure Key Vault	8	StratML	Azure Service Bus	8	StratML
Azure DNS	5	Lind-I, Bobaloo, StratML	Team Foundation Server (TFS)	10	Most Clients

#### Selected Publications

# Zero Trust Architecture and Innovations, May 2020 <a href="http://multiplex.studio/files/ZTA,pdf">http://multiplex.studio/files/ZTA,pdf</a>

A brief for USAF Cyberspace Dominance on the state of ZTA and enhancements.

#### A Cognitive Cyberwar, September 2020

http://multiplex.studio/files/CognitiveCyberwar.pdf
Far reaching strategy and design paper on the application of Cognitive Warfare, prepared for USD-R&E's S&T
Cyber Roadmap

## **Recommendations**

"Jason Lind has a superb ability to rapidly build highly extensible back-end and front-end frameworks. He loves to learn new technologies and is always available to teach his peers about the topics he learned. His biggest strength is the fact that he will take an extra step to understand the implications of the technology he is implementing in your product."

- Leszek Zychowski, Application Development Manager, Hallmark Data Systems

- Tom McKee, Vice President, Mesirow Financial

<sup>&</sup>quot;Jason is an excellent architect and has a strong ability to come up to speed very quickly with complex business rules and implement them as high quality software solutions."

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- "... Jason's superior Architectural skills and design knowledge exemplified the best use of the latest .NET 3.5 capabilities and techniques while adhering to industry accepted patterns and practices... His insightful development of Generic based helper functionality dramatically increased developer productivity and provided a new standard for maintainability. Jason is also a prolific researcher and is poised to help companies move to the next level of architectural design..."
  - Chuck Goodspeed, Senior Architect, Northern Trust Bank
- "Jason is the superman of developing a robust layered architecture. I have seen him single handedly wield XML like a lightning-rod through the depths of SQL Server and .NET Enterprises to create performant and malleable solutions. If you are not sure what your architecture should look like, call him. He already knows. He fixed it last week."
  - Jeff Rafter, CIO, Mortgage Industry Standards Maintenance Organization (MISMO)
- "Jason has an excellent knowledge of emerging technology. He can excel in fast-paced environments requiring advanced software design. His best work is in POC environments working out core solution technical challenges."
  - Carl Franklin, Managing Partner and Solutions Architect, TritonTek
- "Jason has worked with me several times in my architecture practice where he helped research emerging technologies and produce technical drawings. He is a self-starter that comes to the table with creative ideas and out of the box thinking. He has a superior intellect and has brought his considerable intelligence to bear on meeting my challenges."
  - Jeff Brock, CEO, iTDept.com
- "Jason consistently demonstrated his excellence in all areas of his work at Freedows, but even more strongly so in terms of project management and conceptual design...Although he sometimes has a very unorthodox way of approaching IT-related and project-related challenges, he is the type of individual that consistently exceeds expectations even in the most demanding (and even hostile) of situations."
  - Reece Sellin, Project Lead, Freedows OS Project

#### **Previous Roles**

## **Department of Defense / United States Space Force**

Freelance Architect January 2024 – Present

Developed ASP.NET MVC portal that connected with nearly a dozen Postgres databases to render real-time telemetry information of weather ballons.

#### **Hangman Tours**

Software Architect December 2023 – Present

Developing a MAUI application targeting iOS/Android/macOS/Windows for delivering Virtual Walking Tours including Audio from Azure Speech Services and Video Streaming. The management portal is being built in Blazor + ReactiveUI.

## **National Financial Corporation**

Software Architect July 2023 – Present

Helped build a Low/Moderate Income financial services POC suite in ASP.NET 7/Angular 15/TypeScript with Web API and SQL Server Azure. Now migrating to ASP.NET Blazor, ReactiveUI and Telerik.

#### Courseware.coach

Software Architect July 2023 - Present

Designing and implementing AI driven educational product for chatbot-esque coaching and courses in Azure Bot Framework with a management portal in ASP.NET Blazor, ReactiveUI and Telerik

#### **KPMG**

Enterprise Architect – State of New Mexico October 2021 – December 2021

Performed data and business modeling of NOLAP Canonical Data Model targeting MarkLogic. Converted Visio diagrams into Sparx Enterprise Architect models. Spearheaded effort to influence Federal Standards for Medicaid data modeling.

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#### MultiPlex.studio

## Coalition Leader April 2019 – September 2021

MultiPlex.studio was initially founded to tackle the AFWERX Multi-Domain Operations (MDO) Challenge where we were successfully selected as one out of 100/317 entries to present at AFWERX Fusion 2019 in Las Vegas. Our solution focused on Fog Computing, see our whitepaper: <a href="http://wwidew.net/mdo">http://wwidew.net/mdo</a>. We utilized an extensible microservices architecture to plug and play features from first and third parties. Additionally we competed in the 2020 AFWERX Reimagining Energy Challenge in Policy and Culture, the 2021 B-52 Mixed Reality Training Workshop, developed a proposal for ROTC for Office of Naval Research (ONR) and prepared whitepapers for USAF Cyberspace Dominance. Developed and submitted RFP for the National Security Agency and an RFI for the Office of the Undersecretary of Defense for Research and Engineering (USD-R&E).

## Group Bobaloo | Milwaukee, WI

Chief Transformation Engineer August 2017 – August 2018

I co-founded Group Bobaloo with Bob Weiss to consolidate his hospitality-oriented business interests under one entity.

• Designed and implemented Azure ASP.NET Core 2 eCommerce platform on top of Cosmos DB Graph API

#### mil.API.fit

## Chief Transformation Engineer January 2018 - August 2018

Formed to tackle Army SBIR A18-030 "Data tools for the Army Basic Training Environment" where we will discovering/building wearables/IoT for trainees during Basic Military Training as well as services to capture and distribute that data to a modeling platform capable of both altering training of individuals and groups in real time as well providing the ground work to alter unit assignment methodology after graduation of BMT. The project was not selected for the SBIR award and although there was significant interest from the USAF that did not come to fruition either. You can find the submitted bid proposal: <a href="https://multiplex.studio/files//mil.api.fit.pdf">https://multiplex.studio/files//mil.api.fit.pdf</a>

## **Cyber Safety Harbor**

Chief Transformation Engineer January 2018 – June 2018

Cyber Safety Harbor was a long time start up seeking to transform the way Cyber is secured. The company revolved around two patents which protected an architecture whereby a Hardware Unique Factor (HUD); a hardware key that is crypto-etched silicon such that at a quantum level it cannot be duplicated, coupled with a Secure Execution Environment which isolates a runtime in hardened memory on an external device such that the host OS cannot access it. This was a novel open-ended authentication and execution model that represented as perfect security as possible, a quantum leap over traditional technologies. I led efforts to rebrand, bring the architecture into the cloud and identify use cases.

- Designed hybrid-cloud solution for Identity Access Management based on Cyber Safety Harbor's unique product
- Developed ASP.NET Core 2 application for in house CRM.

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#### **3D PDF Consortium**

## StartML Working Group Member December 2017 – December 2018

Strategy Markup Language is an ISO (Part 1) and ANSI (Part 2) standard for expressing strategic plans in machine readable format. I am very interested in Strategy and machine readable and was honored to join the effort to evangelize a common dialect for systems to communicate strategic information. I led the effort to significantly expand the standard with StratML 3.5 and his work has caught the eye of the DoD which currently has an initiative to reduce fuel consumption department wide by 20% before 2022 by simply altering flight plans and use of aircraft. StratML 3.5 would be capable of enabling systems to receive instructions in StratML from command and enforcing those decisions in various existing C2 systems.

• Designed at developed integration solution for capturing IRS Form 990 from AWS S3 using Azure Classic Cloud Services and placed into Azure Service Bus Queues to be transformed into StratML and stored in Cosmos DB SQL API stores that were then indexed by Azure Search and presented through ASP.NET Core 2 application.

## United Airlines | Chicago, IL

## <u>Lead Architect – Merchandising IT</u> October 2015 – February 2016

The Merchandising IT team is responsible for pricing and presentation of non-airfare items through artificial intelligence. As a first order of business I recognized there was no centralized framework team and proposed one to C-Level management where he got permission from his manager to design a proof of concept. I also was instrumental in developing and presenting the proposed architecture to C-Level. The architecture enabled all internal and external channels to leverage these artificially intelligent API's through both REST and SOAP. Once the architecture was realized United Airlines achieved a 30% Quarter over quarter growth in per-seat revenue.

## Hallmark Data Systems | Skokie, IL Lead Architect March 2015 – August 2015

Hallmark Data Systems was a subscription management company with an aged AS/400 solution "powering" their enterprise and I was brought into modernize that into RESTful SOA exposed both internally and to their partners.

- Designed an implemented framework enabling the decoration of the business layer with attributes that custom ASP.NET Web API 2 components would marshal into a exposed REST layer eliminating the need for boilerplate.
- Designed and implemented query engine with custom DSL translated by a CLR SQL Function into T-SQL, a compiler implemented in C# to check the validity of the DSL and a Knockout.js/TypeScript web grid control that enabled dynamic selecting, filtering and sorting on fields including run-time defined ones.

## Guggenheim Partners | Chicago, IL

## Lead Architect – Asset Management June 2014 – December 2014

Guggenheim had an ad-hoc deployment of Microsoft Office based applications driving their core business and I was brought in to design and implement a singular enterprise platform for this suite based on ASP.NET MVC and SQL Server.

- Designed and implemented replacement for Invoicing system which was built on Access and Excel, required pixel perfect rendering of Excel based invoicing templates that were highly configurable in nature
- Designed and implemented replacement for Access based Credit Monitoring system

## Mesirow Financial | Chicago, IL

## Lead Architect – Currency Trading Compliance February 2013 – April 2013

Mesirow Financial required a system for enforcing Currency Trading Agreements with their clients with regards to FX trades. I led the design of a true greenfield project that represented complex Trading Contracts in a SQL Server Schema complete with mechanisms for history and rollback along with a front end for entering that data.

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**Thales Trading Solutions** | Chicago, IL Senior Software Engineer November 2012 – May 2013

Thales was developing a new trading system and I was brought in to develop the Security and Query components.

AlphaMetrix | Chicago, IL

Senior Architect December 2011 – April 2012

AlphaMetrix was developing a revolutionary hedge-fund networking application that connected qualified investors with vetted hedge-funds. Basically, a combination of LinkedIn and E\*Trade but for multi-millionaires. I was brought in to help bring the project over the hump of the beta release. The project had fast moving and ever-changing requirements, so the application had several novel architecture features including a mechanism for defining pages in an Excel XML editor with the business logic in the database.

- Reworked the application's ASP.NET Lifecycle to support contextual widgets that could be purchased in a store
- Mentored more than 25 developers on best .NET practices

Neuberger Berman | Chicago, IL

<u>Lead Architect – High Yield Fixed Income</u> February 2011 – October 2011

NB was in the process of finalizing their new Mortgage Default Projection Model when they hired me and my role was to design the .NET implementation such that it could be plugged into their Mortgage Backed Securities Trading Platform, Bank Mortgage Portfolio Integrity Product and a new line of business called Loan Modification Strategy Fund which purchases distressed debt for pennies on the dollar, modifies the loan to performing and then sells it for \$0.60/\$1.

- Worked with talented Quantitative Analyst to understand and improve new model
- Re-designed current model implementation to support multiple models and implemented new model
- Made significant improvements to performance through parallelization and asynchrony

The Adventurers Club of Chicago | Chicago, IL

Director of Technology November 2006 – September 2011

Led all things technical for this historic and exclusive private club founded in 1911 by Teddy Roosevelt. I was made the Youngest Resident Member in Club History in 2008 at age 24.

Northern Trust Bank | Chicago, IL

Senior Architect – Distributed Frameworks June 2009 – March 2010

I was brought into NT to lead the development an enterprise framework to both aid in the migration of 800 applications from 1.1 to 3.5 and be the standard for new applications going forward. In addition to enhanced and environment specific .NET enterprise application blocks loosely based around Microsoft Patterns and Practices' Enterprise Library I developed an application updater/launcher in WPF and contributed to the automated build and deploy process within TFS.

Aon Benfield | Chicago, IL

<u>Senior Solutions Architect – Catastrophic Risk Modeling</u> September 2008 – June 2009 <u>Senior Application Architect – Catastrophic Risk Modeling</u> September 2007 – March 2008

I had two tours of duty at Aon Benfield, first redesigning an ETL tool used to geocode catastrophic risk property level output on massive insurance portfolios and import those into Oracle OBIE. My second tour of duty I was responsible for innovating the entire process, the end design recommendation can be found here: <a href="https://multiplex.studio/files/CatRange.pdf">https://multiplex.studio/files/CatRange.pdf</a>.

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## Citadel Investment Group | Chicago, IL

Senior Solutions Architect – EGlue Reporting Platform April 2008 – September 2008

Between my stints at Aon I worked at Citadel Investment Group on their EGlue Reporting Platform, when I arrived it was a mature Windows Forms application and I was tasked with creating a read-only web application. At the same time there was a parallel effort to move the EGlue Platform off of .NET Remoting and onto WCF and I architected my end of the solution around that effort. While I was able to achieve a prototype of the web application the WCF conversation was far behind schedule when the height of the financial crisis struck, and Citadel's priorities changed.

comScore | Chicago, IL

Web Services Architect May 2007 – August 2007

comScore is the leader in web analytics and I was brought in to expose their data over web services. I rapidly built out the syndicated services complete with testing and documentation.

Triton-Tek | Chicago, IL

<u>Lead Software Engineer</u> January 2006 – March 2007

Senior Software Engineer March 2005 – January 2006

TT was a small boutique software consulting firm that was later acquired by MavenWave. I started as a Senior Engineer and was quickly promoted to Lead after demonstrating an ability to architect as well as develop. Major projects include an AJAX Construction Scheduler for Town and Country Homes written without any modern frameworks including jQuery and a dynamic web application builder for Phase11 Consultants.

## **ITDept**

Enterprise Architect June 2004 – August 2004

While in the USAF I worked remotely for Jeff Brock's consulting company translating photos of whiteboarded UML designs into strict Sparx Enterprise Architect UML diagrams. Also created a new type of 3D modeling paradigm using 3D Studio Max and Maya.

#### **United States Air Force**

Airman First Class (E3) December 2003 – October 2004

Enlisted with a guaranteed job of Computer Programming but was denied a top-secret clearance due to credit card debt. Ended up in Backshop Avionics Testing and was placed in an 18-month tech school and was appointed an Airman Leader (Green Rope) where I was responsible for more than 50 first-term Airmen.

Fortis Health Insurance | Milwaukee, WI

Programmer Analyst I September 2002 – July 2003

Hired directly by the CIO to help lead the J2EE to .NET 1.0 conversion from the ground floor. Was placed on the Web Team and wrote several of the first deployed ASP.NET applications including a management tool for assigning Disaster Recovery contact information to the various production applications, a process that was previously managed manually.

## $\textbf{Marquette University Department of Mechanical Engineering} \mid \textbf{Milwaukee}, \textbf{WI}$

Computational Mathematician May 2002 – December 2002

I was given a unique undergraduate RA position in the lab of Dr. Joseph Majdalani who is a prolific author in the space of gas flow in solid rocket propulsion engines. His team derives exact/analytic solutions to boundary equations relating to the internal design of engines using Navieer-Stokes differential equations. I provided general lab support in exchange for office space and wrote an application that helped differentiate between trivial and non-trivial solutions by graphing the analytic solution against the problem. This helped solve a 50-year problem that was published in a major journal.

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## Mo's Restaurants | Milwaukee, WI

Chief Software Architect May 2002 - September 2002

Was hired by Johnny 'V' Vassallo to build out his vision of what I coined "Enterprise Restaurant Management System", a SaaS solution that would have managed all aspects of restaurant operations including POS/sales, real-time kitchen management and customer loyalty. It was a great learning experience however I did not have the skills to pull it off.

## CompUSA | Brookfield, WI

Senior Sales Engineer November 2001 – May 2002

Sold computers and related warranty for the Brookfield location. I was the top sales person in the region in service dollars per hour throughout my employment.

Milwaukee PC | Milwaukee, WI

Sales Engineer December 1998 – November 2001

Starting on the assembly line I was quickly promoted to sales where I became the top producer by volume.

## Freedows OS Project

Project co-Lead and Administrative Lead 1997 - 2001

Freedows was a 4000+ member Open Source attempt at creating an Operating System around the Stanford Cache Kernel architecture, enabling modular micro-kernels that would have provided a native emulation layer to existing operating systems such as MacOS, Windows, Linux and even Amiga. I started out as Administrative Lead at age 12 and was promoted into co-Lead after a disagreement split the project in two and was on the non-development side of the house.

## **GeoCities**

Community Leader /Hollywood 1996-1999

As an equity compensated Community Leader for the Hollywood neighborhood I was responsible for supporting tens of thousands of homesteaders on HTML and enforced GeoCities community standards. When GeoCities stated that they were going stop allowing homesteaders under the age of 18 I wrote a passionate letter to the CEO to which he responded by a policy requiring those under the age of 13 to require written parental permission to remain on the site, a policy that was later codified in federal law.

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## **Marquette University**

May 2000 - December 2002 - Junior Standing

Electrical and Computer Engineering major

Political Science minor

- National Association of Engineering Student Councils (NAESC) Midwest Regional Vice President of Finance
- MU IEEE President
- MU Engineering Student Council Treasurer / External Committee Chair
- MU-MUHS F.I.R.S.T. Robotics Team co-Founder

## The John F. Kennedy School of Government at Harvard University

April 2002 – Thesis Prosecutor

Sat on the panel of a PhD thesis defense regarding the application of infect-stay-infect differential equations to the macroeconomic effects of union behavior.

## **Marquette University High School**

August 1998 – May 2001 - Junior Complete

Attended exclusive all boys, Jesuit high school through my Junior year when I was accepted to Marquette University full time as a Sophomore at age 16.

- MUHS Investment Club Portfolio Director (managed real money portfolio for scholarships)
- MUHS Chess Team co-Captain of 2<sup>nd</sup> in State team
- Junior Statesmen of America (JSA) National Deputy Director of the CIA