**PROFESSIONAL SUMMARY: Software Designer / System Architect**

With 15+ years as a full-stack software engineer, I have cultivated my reputation as a highly productive technical leader keen to collaborate and solve problems. My approach leverages an appreciation for automation and process improvement. I natively recognize areas where we can make gains and improve processes for both humans and software. Combined with an aptitude and curiosity for learning, I am flexible, and readily leverage my existing knowledge and experience to uncover meaningful insights.

These insights allow me to support, coach, and build solutions with and for cross-functional product delivery teams. I have embraced challenges, from massive volume to high concurrency, internal issues, B2B, or consumer-facing. I’ve worked with most configurations from monoliths to microservices as well as from greenfield to decades-old systems. My curiosity has given me the opportunity to have a broad perspective, and I’ve found that some of my most valuable contributions have been in less prestigious areas like software quality.

The technologies I’m most familiar with for each family with are C#, Angular, SQL Server, Mongo, Docker, Azure & Kafka. I’ve utilized alternatives to all of these, and I do not believe this stack is suitable for most applications.

***It makes me happy to solve problems, build teams and help bridge the gap between businesses and software development.***

**Professional Experience**

**SOLUTIONS ARCHITECT | MBO PARTNERS | DENVER, CO JAN 2022 – Current**

Joined an existing multi-year project to lead the design and implementation of custom software to connect the off-the-shelf platforms and systems. My core focus is to build a maintainable system with a focus on traceability of data and activities to reduce the cost of ownership of the custom technical components. As an interface between the business and technical parts of the company, I help each understand their partners' perspectives and help navigate tradeoff decisions.

**SENIOR DEVELOPER | CHARLES SCHWAB | DENVER, CO JUL 2020 – JAN 2022**

Assisted in maintenance and enhancements of the intelligent portfolio product. Prototyped new technology that provided visibility into the service mesh by taking machine-oriented data and presenting it in a human-centric fashion. I developed this proof of concept with C#, Blazor, Docker, and Kafka. Advised the lower environment strategy and prototyping new technologies to improve testing outcomes.

**FOUNDER | POSSUM LABS | DENVER, CO JAN 2018 – APR 2020**

In 2018, the consulting company transformed into a product company. We then developed and built a user-friendly web app for organizations’ business experts to describe desired outcomes for software in customizable domain-specific languages. Although the business shut down it offered me an opportunity to not only develop and architect but also run a business, build, and mentor a team, and work with customers. During my time learning how to run a business I architected and developed not just the software but also the way software was written.

The architecture, development, and deployment were created with the budget in mind. Azure was the hosting platform of choice but to allow future flexibility a Kubernetes hosting strategy was chosen. Every operation in Azure was scripted to allow for environments to be provisioned as needed. The backend was written in C# with a focus on clear and consistent naming to help onboard resources, and leverage code generation for the front-end development. The front-end was written in angular, although a heavy weight solution it allowed for small components to be worked on by junior resources. Although Angular is complex, making changes to a single component is not intimidating and allows junior resources to build proficiency and confidence, peeling back the layers as they advanced.

**CONSULTANT for Possum Labs | ENVISION | DENVER, CO NOV 2017 – MAY 2019**

Commissioned to build a test framework to simplify and illuminate automated testing for customer representatives and customers. I enjoyed the challenge of analyzing the issues and identifying what could be done better. Our solution leveraged natural language for test definition, making it so the reading, maintenance, and creation of automated tests became accessible to subject matter experts who lack a programming background. Continued to provide technical support and mentor QA members post-contract.

**CONSULTANT for Possum Labs | STARZ ENTERTAINMENT | DENVER, CO OCT 2016 – OCT 2017**

Working remotely and in the office, my work entailed spearheading the framework development for two distinct automation and testing projects that were used by a mix of on and offshore tester. This required coordinating across departments and cooperation from various stakeholders to ensure the development of frameworks that deliver a high level of confidence.

• The first project required the designing of an automated testing framework for backend services consumed by mobile and web platforms. For this project, acceptance tests ran in Docker containers utilizing Cucumber for Javascript.

• The second project focused on creating an automated performance test framework that requires simulating up to half-million concurrent users watching content. Built using Node, Angular 2, and Typescript, this framework effectively tests production conditions.

**CONSULTANT | TRIMBLE | DENVER, CO FEB 2016 – AUG 2016**

Mentored a team of test engineers and designing and implementing a new and more efficient test framework, I relied upon my skills in both people and processes to successfully achieve our end-goal. The completed project is designed to interact with an existing ESB architecture built on Kafka, using both Specflow and Selenium.

• The framework achieved the stated goals, including reducing the volume of code required by 80% and increasing delivery speed three-fold.

• Adopted for use by teams in New Zealand and India, the final product has also improved the capacity to address increasingly complex front- and back-end and integrated scenarios.

**CONSULTANT for Possum Labs | GLOWPOINT | DENVER, CO NOV 2014 – NOV 2015**

Collaborated with the Glowpoint team to design and implement an Exchange synchronization solution. I achieved project goals through innovative product design, including a solution that allows Exchange users to add services to meetings without the need for plug-ins.

• The product is compatible across all platforms and clients (Outlook, etc.).

• In addition, this fault-tolerant solution required no client-side deployment of software and was implemented using Exchange Web Services (EWS), C#, and SQL Server.

**CONSULTANT for Possum Labs | COBANK | DENVER, CO OCT 2013 – NOV 2014**

Led architecture and development on the rewrite of an internal data maintenance application. We accomplished the goal of updating to supported technology, reducing the cost of ownership, and improving the user experience by utilizing discovery rather than configuration, code generation, and focusing the user's attention on related and applicable data.

• Prior to this project, I assisted with the rewrite of a different CRM system with the same company.

• Both projects were in ASP.MVC with a JavaScript-based UI utilizing EXT.js.

**SENIOR TECHNICAL CONSULTANT | MORTGAGE CADENCE | DENVER, CO MAY 2011 – OCT 2013**

As Senior Technical Consultant, I led a team providing technical leadership for a SaaS product that generates contracts for mortgages. We successfully achieved the aggressive expansion of the customer base as well as the internal administration staff. This success came through focusing on communication so that all stakeholders were able to participate and offer insight, creating optimal solutions.

• Created, led and mentored a cross-functional team to increase production capacity.

• Expanded tooling for team’s document experts and expanded product offering using 3rd party integrations.   
• Introduced automated testing and automated deployments.  
• Introduced better metrics for production operations and the business owners.  
• Analyzed the drivers for interim releases and introduced a rules engine to eliminate those releases.

• Technologies used were ASP.MVC 4 Web API, Windows Presentation Foundation (WPF), C#, and SQL server.

**CONSULTANT for Possum Labs | PDC | DENVER, CO FEB 2010 – MAY 2011**

In this consultant role, I architected and implemented a fault-tolerant, redundant, distributed, load balancing processing platform in C# over WCF. Designed and implemented an XML-based rules engine for record processing. The system used DB2 & SQL server databases.

### CONTRACTOR | TSYS iSOLUTIONS | DENVER, CO NOV 2008 – JAN 2010

### Designed and implemented a business rules engine that could be maintained by the end-user in real-time through a web interface. Users could define rules in a SQL-based Domain Specific Language. Refactored a number of high-usage queries to improve performance and reduce complexity. The project was implemented using Scrum and C# (WCF, WPF, LINQ), ASP.NET (Telerik), and SQL server.

### CONTRACTOR | NATIONAL CINEMEDIA | DENVER, CO JUN 2008 – NOV 2008

### Facilitated the selection of a 3rd party development company to assist the existing development team. The selection was based upon the results of code and design review, as well as estimates of the quantity of work delivered. Designed and implemented back-end systems for a rich UI website written in Flex. The back-end was written in C# with SQL server. My focus was on searching algorithms, API integration (OpenID & Amazon), the notification subsystem, and cross-data source aggregation and normalization.

### LEAD DEVELOPER | FETTER LOGIC, INC. | DENVER, CO JUN 2007 – APR 2008

### I led the development of a new product in the financial services reporting suite to build on normalized data from multiple sources in ASP.NET and with a SQL server. We worked through the initial release and the first service release. The project had 10 developers. We overcame challenges including staff turnover, performance, and limitations based upon initial design decisions by troubleshooting and focusing on best practices.

### SR. SOFTWARE ENGINEER | MANIATV! | DENVER, CO AUG 2006 – JUN 2007

Collaborated in the design and implementation of a website hosting live internet television and user-generated content. The solution was implemented in C# and ASP. The backend was an n-tier architecture written in C# and SQL Server. My focus was on internal tools, as well as site and data analytics.

### SOFTWARE ENGINEER | GAMBRO BCT | DENVER, CO MAY 2004 – AUG 2006

Participated in design and implementation service for medical devices. During this time I designed and implemented a device communication module utilizing TCP/IP. Implemented in C#.

**Programming Languages:**

|  |  |  |
| --- | --- | --- |
| ASP.NET (10+ years)  C# (10+ years)  HTML / CSS (10+ years) | Java Script (10+ years)  SQL (10+ years)  T4 (6 years) | Typescript (4years) |

**Technologies & Competencies**

|  |  |  |  |
| --- | --- | --- | --- |
| ADO  Agile practices  Ajax for ASP  Analytics  Angular  AngularJS  ASP.MVC  Automated build  Automated Deployment  AWS  Azure  Azure DevOps  Bamboo  Bit Bucket  Blazor  Bootstrap  CI/CD Compliance | Cloud Computing  Communication Skills Design patterns  Docker/Kubernetes  Entity Framework  Ext.js  GraphQL  Groovy  Infragistics  Internationalization  IOC  HTML5  Jenkins | jQuery  JSON  LINQ to SQL  MongoDB  .NET (since 1.1)  .NET Core (since 1.0)  Ninject  Node  NoSQL  OOP  CI/CD Compliance  PowerShell  Power BI  Rhino Mocks  Responsive Design  RESTful Web Services | Sass  Scrum  Selenium  SignalR  SOA  SpecFlow  StructureMap  TCP/IP  Telerik  Vue.js  Unit testing  Unity  WCF  Web API  WireMock  WF  WPF |

**Operating Systems:**

Windows (95 through 8 & NT 4.0 through 10)

Unix (Solaris, FreeBSD, OpenBSD, AlpineLinux, Redhat)

**Software Packages:**

|  |  |  |
| --- | --- | --- |
| ANTS Performance Profiler  Azure DevOps  CodeRush  DB2  Ethereal  Git  Microsoft Office | MySQL  NUnit  Omniture  Oracle  Source Safe  SourceGear Vault  SQL Server | Starteam  SVC  Visio  Visual Studio  Visual Studio TFS  VSCode |

**Education**

Dual B.S. Computer Science & Mechanical Engineering | University of Colorado at Boulder | 2004

**Languages**

English (fluent), Dutch (native proficiency), German (2 years), French (3 years)