

## Skills Self-Assessment

### Languages

|                         |       |  |
|-------------------------|-------|--|
| C#<br>☆☆☆☆☆             | 15 yr | <i>Current through C# v8 (2019)</i><br>Have developed and deployed countless applications. Teach C# (basic and advanced) in local college, at local user groups and tech conferences.                        |
| VB.NET<br>☆☆☆☆          | 5+    | <i>Current through 2019</i><br>Have developed smaller applications. Able to move fluidly between C# and VB.NET. Teach VB.NET in local college.   |
| VB v6<br>☆☆☆☆☆          | 20+   | Have developed major (10,000s LOC) in modular data processing and real-time applications.  |
| VBA<br>☆☆☆☆☆            | 15+   | <i>Current</i><br>Have developed complex Access, Excel, and Visio solutions (10,000s of LOC) including DB access, programmatic analytics and simulation.   |
| C++<br>☆                |       | Have developed data processing applications in past, also developed drivers for the Psion handheld data acquisition computer.  |
| Python<br>☆             |       | Have developed simple Python applications. Have passed the Hacker Test for Python. Competent to develop in VS Code. Teach Python basics to local user groups and tech conferences. No deployed applications. |
| R<br>☆                  |       | Teach R basics to local user groups and tech conferences.  |
| Java                    |       | Limited skills. Teach basic Java in local college.   |
| Clipper<br>☆☆☆☆☆        | 20+   | Developed and deployed 100,000s LOC in DOS-level applications. Integrated with Crystal Reports through custom Crystal Windows driver.  |
| Crystal Reports<br>☆☆☆☆ | 10+   | <i>Current through v8</i><br>Have developed 100s of reports including many sub-reports and multi-database connectivity. Have developed DOS to Clipper application to interface Clipper applications.         |
| Turbo Pascal<br>☆☆☆☆    | 3     | <i>Expert, but not current (defunct language)</i><br>Implemented operations management application.  |
| 8085 / Z-80<br>☆☆☆☆☆    |       | <i>Not recently used</i><br>Developed computer systems and processing devices based on the Intel 8080 architecture.  |
| 68000<br>☆☆☆☆           |       | <i>Not recently used</i><br>Developed handheld data logger based on the Motorola architecture.   |

## Database

|                  |     |  |
|------------------|-----|--|
| SQL<br>☆☆☆☆      | 10+ | Developed databases serving 10's of millions of rows, developed stored procedures addressing CRUD and advanced analysis, views and functions addressing simple and complex interactions. Avoid cursors, but have used them. Competent with sub-queries, SQL Bulk Load, CTE. Have written and proposed corporate development standards. Teach C# at local user groups and tech conferences. |
| SQL Admin<br>☆☆☆ | 10+ | Have performed basics of SQL Admin (users, schemas, linking, backup and restore). Database administrators have addressed more complex operations.  |
| Azure SQL<br>☆☆☆ |     | Developed production data schema and data flow philosophy.   |
| Azure table<br>☆ |     | Have an academic and experimental knowledge of Azure Tables and Storage.   |

## Platforms and Extensions

|                           |     |  |
|---------------------------|-----|--|
| Visual Studio<br>☆☆☆☆     | 15+ | <i>Current through 2019</i><br>Have utilized Visual Studio since early versions. Competent integrating NuGet and Git. Have not developed extensions. |
| Visual Studio Code<br>☆☆☆ |     | Utilized VS Code for Python, R, and C# projects  |
| Git / GitHub<br>☆☆        | 2   | Utilize basic Git features for personal, professional, and educational purposes.   |
| Azure<br>☆☆               | 5   | Have utilized and developed services including VM, functions, storage, web application, databases, machine learning, cognitive services.             |
| ReSharper<br>☆☆☆☆         | 8   | Proficient with ReSharper for several years. More to learn.  |

## Machine Learning

|                          |   |  |
|--------------------------|---|--|
| Azure ML Studio<br>☆☆☆   | 2 | Have developed demonstrations and experiments. Teach ML Studio at user groups and tech conferences.                |
| Cognitive Services<br>☆☆ | 1 | Have developed demonstrations. Teach ML Studio at user groups and tech conferences.                                |
| ML.NET<br>☆☆             | 2 | Have developed demonstrations based on ML Studio experiments. Teach ML Studio at user groups and tech conferences. |
| Data science<br>☆☆☆      | 4 | Developed data science demonstration projects utilizing Azure ML Studio, Azure Cognitive Services, and ML.NET.     |

## Frameworks

|                          |     |  |
|--------------------------|-----|--|
| .NET Framework<br>☆☆☆☆☆  | 15+ | <i>Current through v4.7.2</i><br>Have utilized .NET Framework since early days. Have developed applications, libraries, and unit test projects (including WinForms and WPF solutions). Teach in local college.   |
| .NET Standard<br>☆☆☆☆☆   |     | <i>Current through v3</i><br>Have developed libraries, and unit test projects. Teach in local college.   |
| .NET Core<br>☆☆☆☆☆       |     | <i>Current through v3</i><br>Have developed applications, libraries, and unit test projects (including WPF solutions). Teach in local college.   |
| WinForms<br>☆☆☆☆☆        | 15+ | Have developed multiple stand-alone and client-side applications including forms inheritance, MDI, User Controls. Projects include desktop analytics, real-time processing, data ingestion. Largest application utilized ~30 projects, User Controls, Telerik. Other applications utilized Crystal Reports, Component-One, and National Instruments libraries. |
| WPF<br>☆☆                | 2   | Have developed and deployed solutions. Not yet as proficient as WinForms..   |
| WebForms<br>☆☆           | 15+ | Have developed 2 commercial webforms products with an estimated total time in service of 15 years. Have taught WebForms at local college.  |
| MVC<br>☆☆☆               | 5+  | Implemented web applications and web API utilizing the Controller-Centric and Data Model concepts. More to learn.  |
| Razor<br>☆☆              |     | Have developed and deployed razor based MVC web applications   |
| WCF<br>☆☆                | 8   | Have developed and deployed WCF applications in past. Have typically implemented through the CodeFramework toolkit developed by EPS Software (Markus Egger).   |
| WebAPI<br>☆☆             |     | Have developed fully functioning and competent solutions in an academic / learning environment.  |
| gRPC<br>☆☆               |     | Have developed fully functioning and competent solutions in an academic / learning environment.  |
| Entity Framework<br>☆☆☆☆ | 8   | Have developed and deployed complex, applications and analytics utilizing EF 4-6.  |
| Reverse POCO<br>☆☆☆      | 5   | Have implemented production systems based on database-first reverse POCO pattern.  |
| Dapper<br>☆☆☆            | 5   | Have implemented production systems based on database-first Dapper.  |
| Component One<br>☆☆☆     | 10+ | <i>Current through 2009</i><br>Developed and deployed multiple projects integrating real-time processing and data analytics  |
| Telerik WinForms<br>☆☆☆☆ | 8   | <i>Current through 2016</i><br>Developed and deployed multiple projects integrating data analytics   |
| RedGate<br>☆☆☆           | 9   | <i>Current through 2015</i><br>Developed and maintained applications incorporating RedGate.  |

|                  |  |  |
|------------------|--|--|
| Blazor<br>☆☆     |  | Have developed educational projects. Teach at local user groups and tech conferences.  |
| JavaScript<br>☆  |  | Able to work through a problem. No active JavaScript solutions developed. Know enough to know some of the traps present in the 'this' keyword. |
| Jquery<br>☆      |  | Have utilized jQuery in academic / learning environments.  |
| CSS<br>☆☆☆       |  | Am competent and capable with CSS including conditionals.  |
| Bootstrap<br>☆☆☆ |  | Have developed, but not deployed, bootstrap based applications.  |

## Development Methodologies

|                           |     |  |
|---------------------------|-----|--|
| Coding Standards<br>☆☆☆☆☆ | 5+  | Have developed and implemented corporate standards. Teach concepts at local college, local user groups and tech conferences.   |
| Agile<br>☆☆☆              | 8   | Have implemented and managed Agile projects with 3 <sup>rd</sup> party suppliers.  |
| Kanban<br>☆☆☆☆            | 10+ | Early adopter of principals. Implemented and managed Kanban processes in corporate environment.  |
| Azure DevOps<br>☆☆        |     | Have utilized and develop projects around Azure DevOps solutions.  |
| Unit Testing<br>☆☆☆☆☆     | 8   | Implement unit and integration testing in all development projects. NUnit and Shouldly normally utilized. Teach unit testing at local college, local user groups and tech conferences. |
| MVVM<br>☆                 |     | Developed self-learning projects.  |
| Multi-Threading<br>☆☆☆    | 15+ | Have developed task-based threading applications as well as modern async / await applications. Teach basic multithreading in local college   |
| CQRS<br>☆☆☆☆☆             | 10+ | Have been practicing CQRS design patterns for years. Implemented and deployed as part of multi-tier and WCF projects.  |

## Other

|                            |     |   |
|----------------------------|-----|---|
| Technical writing<br>☆☆☆☆☆ | 20+ | Have developed and delivered proposals, project plans, user manuals, technical manuals, service manuals, specifications, and college lab manuals. Skills developed through university training: Technical Writing, Technical Editing.                                 |
| Algorithms<br>☆☆☆☆☆        | 20+ | Have been active data analytics and processing developer utilizing advance algorithmic solutions. Have developed industrial processing algorithms for inspection systems and commercial algorithms for VBA and Access solutions. Solutions developed in VB6, C#, SQL. |
| Data Analysis<br>☆☆☆☆☆     | 20+ | Have developed data analytics over course of several years addressing real-time, census projections, educational success.   |