**Software Engineering Knowledge Areas**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Expertise** | ***1*** | ***2*** | ***3*** | ***4*** | ***5*** | ***6*** | ***7*** | ***8*** |
| ◌-Basic 🌕-Competence ●-Advanced ●-Expert |  |  |  |  |  |  |  |  |
| **Software Development Technologies** |  |  |  |  |  |  |  |  |
| C# | ◌ | ◌ | ◌ | 🌕 | ● | ● | ● | ● |
| HTML | ◌ | 🌕 | 🌕 | ● | ● | ● | ● | ● |
| CSS | ◌ | 🌕 | 🌕 | ● | ● | ● | ● | ● |
| JavaScript & JQuery & JSON | ◌ | 🌕 | 🌕 | ● | ● | ● | ● | ● |
| XML/XPath | ◌ | ◌ | ◌ | ● | ● | ● | ● | ● |
| Database | ◌ | ◌ | ◌ | 🌕 | ● | ● | ● | ● |
| **User Experience** |  |  |  |  |  |  |  |  |
| General usability concepts | ◌ | 🌕 | 🌕 | ● | ● | ● | ● | ● |
| Mobile interface design concepts |  |  | ◌ | ◌ | 🌕 | ● | ● | ● |
| Tablet/touch interface design concepts |  |  | ◌ | ◌ | 🌕 | ● | ● | ● |
| **General Technical Skills** |  |  |  |  |  |  |  |  |
| Object oriented principles | ◌ | ◌ | 🌕 | 🌕 | ● | ● | ● | ● |
| Algorithms | ◌ | ◌ | 🌕 | 🌕 | ● | ● | ● | ● |
| Production coding practices | ◌ | ◌ | 🌕 | 🌕 | ● | ● | ● | ● |
| Writes project level tools |  |  |  | ◌ | 🌕 | ● | ● | ● |
| Creates GUI designs |  | ◌ | ◌ | ◌ | 🌕 | ● | ● | ● |
| Unit testing proficiency | ◌ | ◌ | 🌕 | 🌕 | 🌕 | ● | ● | ● |
| Analysis and diagnostics of performance issues |  |  | ◌ | 🌕 | ● | ● | ● | ● |
| Debugging capability | ◌ | ◌ | ◌ | 🌕 | ● | ● | ● | ● |
| Source code control | ◌ | ◌ | 🌕 | ● | ● | ● | ● | ● |
| Design patterns | ◌ | ◌ | ◌ | 🌕 | 🌕 | ● | ● | ● |
| Programming Languages | ◌ | ◌ | ◌ | 🌕 | 🌕 | ● | ● | ● |
| **Time & Project Management** |  |  |  |  |  |  |  |  |
| Discipline | ◌ | 🌕 | 🌕 | 🌕 | ● | ● | ● | ● |
| Personal Communication | ◌ | 🌕 | 🌕 | 🌕 | ● | ● | ● | ● |
| Requirements analysis |  |  | ◌ | 🌕 | ● | ● | ● | ● |
| Scope identification & management | ◌ | ◌ | ◌ | 🌕 | ● | ● | ● | ● |
| Software Life Cycle |  |  | ◌ | 🌕 | ● | ● | ● | ● |
| Time/Schedule estimation |  |  | ◌ | 🌕 | ● | ● | ● | ● |
| Written Communication | ◌ | 🌕 | 🌕 | 🌕 | ● | ● | ● | ● |
| Engineering Economics |  |  |  |  | ◌ | 🌕 | ● | ● |
| Provides guidance to others |  |  |  | ◌ | 🌕 | ● | ● | ● |
| Independent worker |  | ◌ | 🌕 | ● | ● | ● | ● | ● |
| Supervision or mentoring |  |  |  |  | ◌ | 🌕 | ● | ● |
| Works in team | ◌ | 🌕 | 🌕 | 🌕 | ● | ● | ● | ● |
| Self-education capability | 🌕 | 🌕 | ● | ● | ● | ● | ● | ● |