**Industry Data**

**Ideal jobs for group members:**

**Bryce, Noah and Rhiannon: Software Developer**

This job ranked first on the list for top 25 occupations listed in the industry data from Burning Glass Technologies between March 1, 2017 and February 28, 2018, per Figure 1.1 below:

Chart

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Figure 1.1

Generic skills and IT specific skills required for this position, as noted by the Australian Department of Labour (2021a), were high to mid-level ranked requirements for employers (see Figure 1.2 and 1.3)

Chart

Description automatically generated

Figure 1.2

Chart

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Figure 1.3

|  |  |
| --- | --- |
| Generic Skill | Burning Glass Rank  /25 *(Figure 1.2)* |
| Communication, oral and written/Articulate | 1, 4, 23 |
| Problem Solving/Trouble Shooting/Analytical Skills/Decision Making | 2, 6, 17, 25 |
| Organizational Skills/Planning/Time Management/Meeting Deadlines/Multitasking | 3, 7, 12, 16, 20 |
| Teamwork/Team Building/Building Effective Relationships | 5, 18, 22 |
| Detail Orientated | 8 |
| Creativity | 9 |
| Presentation Skills | 15 |
| Quality Assurance and Control | 14 |

|  |  |
| --- | --- |
| IT Specific Skill | Burning Glass Rank  /25 *(Figure 1.3)* |
| **Programming Languages**: |  |
| SQL | 1 |
| JavaScript | 2 |
| JAVA | 3 |
| MS C# | 12 |
| Python | 22 |
| **Database Management**: |  |
| SQL | 1 |
| Oracle | 19 |
| **Source Control**: |  |
| Git | 21 |
| **Text Editing Software**: | Not listed in top 25 |
| **Operation Systems**: |  |
| Windows | 4 |
| LINUX | 13 |

**Hannah – Cyber Security Analyst**

In the results of the Top 25 Burning Glass Occupation list, this role is listed as 13th out of 25 (see Figure 1.1).

Like the Software Developer role, generic skills and IT specific skills required for this position, as noted by the Australian Department of Labour (2021b), were also high to mid-level ranked requirements for employers (see Figure 1.2 and 1.3).

|  |  |
| --- | --- |
| Generic Skill | Burning Glass Rank  /25 *(Figure 1.2)* |
| Communication, oral and written/Articulate | 1, 4, 23 |
| Risk Assessment/Critical Thinking (Problem Solving/Trouble Shooting/Analytical Skills/Decision Making) | 2, 6, 17, 25 |
|  |  |
| Understanding of laws and standards specific to industry (Detail Orientated) | 8 |
|  |  |
| Creativity | 9 |
| Active Learning (Research) | 10 |
|  |  |
| Organizational Skills/Planning/Time Management/Meeting Deadlines/Multitasking | 3, 7, 12, 16, 20 |
|  |  |
| Teamwork/Team Building/Building Effective Relationships | 5, 18, 22 |
| Presentation Skills | 15 |
| Quality Assurance and Control | 14 |

|  |  |
| --- | --- |
| IT Specific Skill | Burning Glass Rank  /25 *(Figure 1.3)* |
| **IT/Cyber Security/Computer Science qualification** |  |
|  |  |
| **Programming Languages**: |  |
| SQL | 1 |
| JavaScript | 2 |
| JAVA | 3 |
| MS C# | 12 |
| Python | 22 |
|  |  |
| **Database management:** |  |
| SQL | 1 |
| Oracle | 19 |
|  |  |
| **Operating Systems:** |  |
| Windows | 4 |
| LINUX | 13 |
|  |  |
| **Project Management** | 5 |
| **Text Editing Software** | Not listed in top 25 |
| **Remote Access Systems** | Not listed in top 25 |

**Daniel – Research Scientist at OpenAI**

While this role did not appear in the Top 25 Burning Glass Occupation list (*Figure 1.1*), it is the most industry specific of the roles and the most technologically involved (OpenAI 2021). Additional information about the importance of the role in the AI field was found online (Verma 2021).

|  |  |
| --- | --- |
| Generic Skill | Burning Glass Rank  /25 *(Figure 1.2)* |
| Communication, oral and written/Articulate | 1, 4, 23 |
| Risk Assessment/Critical Thinking (Problem Solving/Trouble Shooting/Analytical Skills/Decision Making) | 2, 6, 17, 25 |
|  |  |
| Creativity | 9 |
| Proof of first author publications or projects (Research) | 10 |
| Detail Orientated | 8 |
| Organizational Skills/Planning/Time Management/Meeting Deadlines/Multitasking | 3, 7, 12, 16, 20 |
|  |  |
| Leadership/Management | 11, 19 |
| Teamwork/Team Building/Building Effective Relationships | 5, 18, 22 |
| Presentation Skills | 15 |
| Quality Assurance and Control | 14 |

|  |  |
| --- | --- |
| IT Specific Skill | Burning Glass Rank  /25 *(Figure 1.3)* |
| **Masters or Doctorate in Computer Science or related tech field** |  |
|  |  |
| **Programming Languages**: |  |
| SQL | 1 |
| JavaScript | 2 |
| JAVA | 3 |
| MS C# | 12 |
| Python | 22 |
|  |  |
| **Database management:** |  |
| SQL | 1 |
| Oracle | 19 |
|  |  |
| **Operating Systems:** |  |
| Windows | 4 |
| LINUX | 13 |
|  |  |
| **Project Management** | 5 |
| **Text Editing Software** | Not listed in top 25 |
| **Computer Architecture** |  |
| Software Engineering | 15 |
| Systems Engineering | 24 |
| **Algorithms** | Not listed in top 25 |
| **Machine Learning** | Not listed in top 25 |

The three highest ranked IT specific skills not listed for each role (see Figure 1.3) are:

**Bryce, Rhiannon, Noah – Software Developer**

* Research
* SAP
* Business Management

**Hannah – Cyber Security Analyst**

* SAP
* Business Management
* Business Analysis

**Daniel - Research Scientist at OpenAI**

* SAP
* Business Management
* Business Analysis

The three highest ranked generic skills not listed for each role (see Figure 1.2) are:

**Bryce, Rhiannon, Noah – Software Developer**

* Research
* Leadership
* Mentoring

**Hannah – Cyber Security Analyst**

* Leadership
* Mentoring
* English

**Daniel - Research Scientist at OpenAI**

* Mentoring
* English
* Self-starter

**Having looked at the Burning Glass data, has your opinion of your ideal job changed? Why or why not?**

Rhiannon – No, my opinion of my ideal job has not changed. The Burning Glass data provided is already four years old and the IT industry has evolved and improved since then. There are coding languages used today that weren’t listed, as well as IT roles that are becoming more popular and important in the field. I am still interested in pursuing a career as a Software Developer.

**References**

Australian Department of Labour 2021a, *Software and Application Programmers,* JobOutlook, viewed 28 December 2021,

<https://joboutlook.gov.au/occupations/occupation?occupationCode=2613>

Australian Department of Labour 2021b, *ICT Security Specialist,* JobOutlook, viewed 28 December 2021,

<https://joboutlook.gov.au/occupations/ict-security-specialists?occupationCode=262112>

OpenAI 2021, *OpenAI Jobs Research Scientist,* OpenAI, viewed 29 December 2021,

<https://boards.greenhouse.io/openai/jobs/4229594004>

Verma, E 2021, *Top 5 Jobs In AI And The Key Skills Needed To Help You Land One,* Simplilearn, viewed 29 December 2021,

<https://www.simplilearn.com/top-artificial-intelligence-career-choices-and-ai-key-skills-article>