**Industry Data**

Considering the Burning Glass data broadly, our job titles fall in order of least to most demand out of the 200 jobs provided: Hayden [Information Security Manager, 99th], Ray [IT Support, 112th], Liam [Database Administrator, 143rd], and Cinzia [Information Security Consultant 146th]. These are ranked as per the BGTOCCs data provided.

The variation in demand when ranked from highest to lowest shows infinitesimal differences between each profession we express interest in in the graph provided. Compare this to the gap between the most in-demand shown, Software Dev/Engineering at 29’456 advertisement postings, and Computer Systems Engineering/Architect, which ranks second highest at 13’111 postings. A further example of this skewedness is that the lowest demand job, Computer Operator sitting at 162, has a distance from the second-highest job that is smaller than the one between simply the first and second jobs.

Gavin’s career of interest, Game Tester/Analyst, is very hard to place when categorized against professions, given the on-off nature of demand (Bay, J. W., 2018)- dependent on game developments and releases. Despite the trend shifts, Game Tester positions have a rough average of 0.006% of all posted advertisements, IT-related or otherwise.

Concerning Hayden and Cinzia’s lines of work, the fields of Cybersecurity itself are presently in large demand. The Cisco Annual Security Report, 2014, states: “It’s estimated that by 2014, the industry will still be short more than a million security professionals across the globe.” Additionally, the company *Cybersecurity Ventures* predicts “… by 2014, the industry will still be short more than a million security professionals across the globe.” (Gelber, 2018). They also believe that all IT positions, if not already, will end up requiring some form of expertise in Cybersecurity. Evidence towards this demand is already being seen, as entry-level positions in Cybersecurity for any job title of this field are growing in demand. Therefore, there wouldn’t be many barriers for breaking into this industry.

**Group’s Required Skills and Demand Ranking**

The IT-specific skills that come with being involved in Cybersecurity are diverse. Some of the main and most sought after skills are those grounded in coding, particularly JAVA, ranked 4rd, and Python, ranked 22nd. Game Development also requires knowledge of programming languages especially when it comes to bug-fixing in the game testing process; JavaScript [3rd] and C++ [23rd] are sought-after examples of these, as well as .NET [9th] programming. SQL Server [14th], alongside SAP [6th], is a skill required for Cinzia’s area of Cybersecurity.

Citrix and Oracle appears in various IT Manager advertisements as they are commonly used in educational arrangements, and rank 33rd and 63rd respectively. Database Administrators need to know a range of skills, such as operating to SQL, which is ranked 1st. UNIX Systems [21st], Linux [8th], and Windows [5th]- three common operating systems -are also invaluable, due to their high rankings.

Unrelated to the above specific skillsets, a basic understanding of web applications is essential. This experience could later translate into website production, which has been ranked 17th. Altogether, the group’s required skills are code-based and take much of the top-10 demanded skills. Despite the jobs being in the mid-range of demand, they all use these skills of higher ranks as they are common and essential for an IT career.

General or ‘soft’ skills in our ideal jobs are all Communication-based [1st] and require adept Writing [4th] skills, as many jobs do.

Team Work, necessary for Cybersecurity jobs and IT Management, ranks 5th and goes hand-in-hand with Problem Solving and Troubleshooting, which are 2nd and 6th respectively. Leadership, at 11th, can also play a part in these jobs. Game Testing is Detail-orientated [8th], utilizes Problem Solving, and is focused on QA [14th] and Analytical Skill [17th]. Planning [7th] is also required for Cinzia’s ideal job.

The three most sought-after IT-specific skills that we as a group do not cover here are Microsoft C# [5th], Microsoft Office [10th], and Git [12th]. For General skills, they are Organizational Skills [3rd], Creativity [9th], and Research [10th].

**Opinions**

After looking at the burning glass data, we have separately reported our opinions:

Hayden’s job aspirations have not changed. A good quantity of the skills required in Cybersecurity are in high demand as of now; should this is a pathway he chooses to commit to, there are many advantages he has to make it a reality.

Ray has no change in opinion- though, due to being interested in a career outside of IT in general, there isn’t much to change.

*Please add your own in this section \o/*

Ray: her skills of altruistic nature and deep sensitivity towards other as well as human rights advocate will be best directed as IT Support in the Medical and or Psychological/therapeutic field: future opportunities can be found on music therapy, neurology, in cybersecurity to monitor behaviors or simply the vast world of Cyberpsychology where different choices are available and in great demand even if it’s not reflected, currently, on the Burning Glass statistical data.

**Ideal Job Comparison**

Our proposed career paths are all vastly different. Cinzia specifies that her job in Cybersecurity is Forensic Accounting- a niche area of security and cyber-crime fighting in today’s technological world –and is on quite a different level to Hayden’s area of Information Security Manager. Both require large variations in applications of knowledge, teamwork, and consistent communication. Although comparable in their heart of information security, they have separate aspects of industries in which they are established.

On the opposite spectrum to this, Gavin’s ideal job is performed solitary for the most part, and is constant and narrow in its working variety. Even so, bugs in games can seem alike to security breaches or information mishaps as the above two jobs would see and have to deal with in their work. It also requires hard-yards of troubleshooting followed by problem solving, a feature shared with Cybersecurity. (Although Gavin’s ideal job could be some time solitary due to core analysis on finding errors thus bring improvements through algorithm’s debugging, his personally will thrive in a team environment. Military fields are now days based on “gaming” using drones (war at distance). Gavin would have a good future prospective in directing his reflective and outgoing nature if interested in the army. A team involvement would most needed as well as his inclination for debugging would be extremely important for fixing gaming application and be beneficial to minimise civilian casualties and save lives).

Liam has mentioned that travelling and networking is a part of his Senior Database Administrator position. This is very different to other jobs wherein travel should only occur if there is a change in job location, or a work-related trip.

As the majority have an ideal level of Administrator and Managerial positions, they have a common factor of prior experience specific to their fields, which is a finer similarity than a general requirement for experience in all of our career outlooks. In this way, pathways to each job has commonalities in that a base of knowledge and experience in the field would be the way in which we progress.

**References**

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