## Job Title

|  |  |
| --- | --- |
| **Member** | **Job title** |
| Anthony Brown | Full-Stack Developer |
| Tim Damon | Senior Gameplay Designer |
| Shaun Lottey | Senior C++ Engineer (Gameplay Programmer) |
| Jake McAndrew | ASD Software Developer/cybersecurity |
| Jason Tilgner | developer / full stack developer. |
| Jason Walstab | IoT Solutions Leader |

### Consideration of what the Burning Glass list of job titles is presenting

The burning Glass data ranked by count of job descriptions advertised across a year. We see some problems with this data. Once smoothed out and accounted for the figures reflect a different outcome. We have explained this below, then looked at how the Red Panthers dreams are reflected in the job market.

#### Data adjustments

In considering this data and our future career aspirations, we see three issues that must be address:

1. Ranking is misleading
2. Job titles have not been compiled into homogeneous groups
3. Salaries are not considered

We discuss each in turn.

##### Ranking

Firstly, the current listing is also overly dramatic. The difference between counts for some descriptions is inconsequential. Looking at the graph you might think job A is in more demand than job B because it is one step higher in the rank, but this isn’t so. The difference in counts are somewhat inconsequential. In other words, a great number of these jobs should be ranked on the same tier because their counts are more-or-less the same. We did this by converting the counts to a percentage of the total, then ranking by base points (first decimal of the percentage). Ranking cells changed from 200 to 24. See TABLE1.

Looking at this new arrangement; we see the top 50% of job counts are within the range of 1%-3%, which is very close to each other. We wonder, for half the jobs listed, if this ranking is insightful at all.

##### Join like jobs together

The second issue is that job titles have not been well combined. The job ‘System Architect’ looks like the most in-demand job, but below we will disprove this.

We searched for job titles that contained the word ‘desk’ and found a mass of related roles. The different job names reflect more the changing trends in job titles, less the change in job role. A count of 16 job titles was returned with a sum of 2000 ads, making this by far the most prolific job placements at 6% of the total. The job descriptions also give us hope that there is a considerable opportunity for career progression within this bracket. See TABLE 1a.

Similarly, front-end developer positions look small, but after accounting for variations in naming the count becomes healthy. Together, jobs containing the term ‘front’ sum to 1197 job placements. At 4% of the total, a substantial lead on ‘Systems Architects’. See TABLE 1b.

##### Salary

The other thing entirely missing from this approach is salary. There may have only been 50 IT Security Analyst listed in the last year, but say their salary is $250K annually, you might well want to have you sights on this, in the long run. You cannot get to these big paying jobs in quick steps, you must build a career towards them. But what are they?

### Looking at Jobs Titles within Red Panther

Within our group, there are four types of jobs we are interested in pursuing.

* Full-stack developer
* C++ Engineer (Gameplay Programmer)
* Cyber-security
* IoT engineer

Full-stack developers should have developed skills in front end and back end frameworks. We accumulated a list of front-end, back end, cloud and database type roles that are encompassed by the term ‘full-stack’. The total is 2750 job adds. At 9% of all listings, this is a healthy line of business. See Table 2.

General variants on the developer theme, and outside of those already counted, totalled 6030 jobs (around 20%) Table 3.

Gameplay and C+ engineers have few listings. There are no Game developers and only 90 C language positions.

Cyber-security. Looking for jobs containing ‘security’ returns a list of 900 jobs. At 3% of the total, this too is a big hitter, and with options for career progression - Table 4.

The is nothing in the list for IoT engineer, making it a boutique line of work.

### Reconsider Job Interests

TODO

TABLE1: a less dramatic way to rank Job title advertisements

|  |  |  |  |
| --- | --- | --- | --- |
| **Rank** | **percentage of total jobs listed** | **Count of Job titles** | **Sum of Job Postings** |
| 1 | 0.033 | 1 | 987 |
| 2 | 0.03 | 1 | 887 |
| 3 | 0.027 | 1 | 808 |
| 4 | 0.026 | 2 | 1565 |
| 5 | 0.025 | 1 | 738 |
| 6 | 0.024 | 1 | 713 |
| 7 | 0.023 | 1 | 681 |
| 8 | 0.022 | 1 | 666 |
| 9 | 0.019 | 1 | 555 |
| 10 | 0.018 | 1 | 539 |
| 11 | 0.016 | 3 | 1423 |
| 12 | 0.013 | 2 | 752 |
| 13 | 0.012 | 1 | 344 |
| 14 | 0.011 | 4 | 1327 |
| 15 | 0.01 | 1 | 303 |
| 16 | 0.009 | 4 | 1101 |
| 17 | 0.008 | 6 | 1401 |
| 18 | 0.007 | 3 | 649 |
| 19 | 0.006 | 10 | 1775 |
| 20 | 0.005 | 13 | 1926 |
| 21 | 0.004 | 25 | 2885 |
| 22 | 0.003 | 34 | 3017 |
| 23 | 0.002 | 70 | 4065 |
| 24 | 0.001 | 13 | 562 |
| **Grand Total** | | **200** | **29669** |

TABLE 1a: Work in the Help service sphere

|  |  |
| --- | --- |
| **Title** | **Job Postings** |
| Service Desk Analyst | 779 |
| Desktop Support Analyst | 164 |
| Desktop Support Engineer | 162 |
| Desktop Support | 127 |
| Service Desk Officer | 112 |
| It Service Desk Analyst | 108 |
| Help Desk Analyst | 95 |
| Desktop Support Officer | 92 |
| Help Desk Officer | 58 |
| Service Desk Consultant | 57 |
| Desktop Engineer | 56 |
| Help Desk Support | 52 |
| Service Desk Technician | 51 |
| It Help Desk Support | 47 |
| Service Desk | 46 |
| It Help Desk | 42 |
| **TOTAL** | **2048** |
| **Pct** | **7%** |

**TABLE 1b: positions including the name ‘full’**

|  |  |
| --- | --- |
| **Title** | **Job Postings** |
| Full Stack Developer | 344 |
| Full Stack Java Developer | 115 |
| Full Stack .Net Developer | 113 |
| Senior Full Stack Developer | 98 |
| Full Stack Web Developer | 49 |
| **TOTAL** | **719** |
| **Pct** | **2%** |

TABLE2: Roles available for full stack developers

|  |  |
| --- | --- |
| **Job title** | **ad counts** |
| Full-Stack Developer | 344 |
| Full Stack Java Developer | 115 |
| Full Stack .Net Developer | 113 |
| Senior Full Stack Developer | 98 |
| Full Stack Web Developer | 49 |
| Front End Developer 1 | 738 |
| Senior Front End Developer | 303 |
| Front End Web Developer | 85 |
| Frontend Developer 2 | 71 |
| Cloud Engineer | 65 |
| Cloud Architect | 58 |
| Database Administrator | 238 |
| Data Engineer | 182 |
| Data Architect | 162 |
| Data Administrator | 82 |
| Data Warehouse Developer | 44 |
| **TOTAL** | **2747** |
| **Pct** | **9%** |

TABLE 3: roles for developers

|  |  |
| --- | --- |
| **Title** | **Job Postings** |
| .Net Developer | 808 |
| Java Developer | 713 |
| Senior Net Developer | 481 |
| Senior Java Developer | 478 |
| Software Developer | 337 |
| Developer | 278 |
| Php Developer | 277 |
| Senior Developer | 243 |
| Ios Developer | 227 |
| Senior Software Developer | 178 |
| Android Developer | 171 |
| Senior Php Developer | 143 |
| Senior Ios Developer | 119 |
| Javascript Developer | 113 |
| Python Developer | 106 |
| Integration Developer | 101 |
| Ruby On Rails Developer | 99 |
| Etl Developer | 94 |
| Application Developer | 92 |
| Drupal Developer | 89 |
| Mobile Developer | 82 |
| Mobile Applications Developer | 76 |
| Senior Android Developer | 72 |
| Sap Abap Developer | 69 |
| Hadoop Developer | 66 |
| Junior Developer | 66 |
| Lead Developer | 61 |
| Junior Net Developer | 58 |
| Mid-Level .Net Developer | 54 |
| Salesforce Developer | 50 |
| Graduate Software Developer | 48 |
| Senior Drupal Developer | 48 |
| Oracle Developer | 47 |
| Aem Developer | 44 |
| .Net Web Developer | 42 |
| **TOTAL** | **6030** |
| **Pct** | **20%** |

TABLE4: Roles available in the security field

|  |  |
| --- | --- |
| **Title** | **Job Postings** |
| Security Analyst | 173 |
| Security Architect | 142 |
| Security Consultant | 107 |
| Information Security Manager | 91 |
| Senior Security Consultant | 73 |
| Network Security Engineer | 72 |
| Security Engineer | 70 |
| Information Security Consultant | 59 |
| Information Security Analyst | 58 |
| It Security Analyst | 51 |
| Security Manager | 50 |
| **TOTAL** | **946** |
| **Pct** | **3%** |