**Part 1 - Job Description Analysis**

**Group Summary**

**Technical Skills:** Every job that we found required a minimum of an undergraduate degree in a related field. The majority of them wanted the applicant to have experience with C/C++, with the majority of those jobs wanting the person to have C# experience too. A few of the jobs wanted the person to have experience with Assembly or AWS, with those being maybe 10%-15% of the total number of jobs we found.

**Soft Skills:** Strong communication and the ability to learn were some of the primary soft skills we found in our jobs. Many of the job postings called those specific abilities out directly in the listing, and if they weren’t then they were heavily implied by some of the other requirements of the job. A few jobs required the applicant to have a valid visa or the ability to speak/write Japanese. For a company that is primarily focused on video game development, it was interesting to see that many of the positions don’t mention any kind of background in video games as a requirement for them.

**Culture:** Nintendo doesn’t usually post specifically about their culture, but it does talk about what they want from their employees and in many of the job postings they have similar wants from each of their applicants. They value innovation and creativity. Nintendo wants their employees to think outside the box and to take calculated risks. The company is willing to buck traditional Western trends in the videogame marketplace to reach people that would otherwise be less than interested in their systems.

**Conrad’s Job Descriptions**

1. **Sr Software Engineer (NTD)**

**Technical Skills:** At least 5 years of SDE experience. Understanding of compilers, linkers, and object files. Experience with debugging embedded systems. Undergraduate degree in Computer Science. Proficient in C/C++ programming and Python scripting. Experience with socket-based network programming.

**Soft Skills:** Leadership to technical staff. Strong communication skills. Independence.

**Culture:** Pioneers. Desire innovation and creativity to explore new frontiers. Value simplicity and experience.

1. **Software Engineer (Build Engineer) (NTD)**

**Technical Skills:** At least 3 years of SDE experience. Strong knowledge and understanding of all aspects of software product development and testing paradigms. Strong programming skills in C++, C#, or Java. Development experience on Unix, Linux or Windows. Strong understanding of source control and continuous integration software. Technical writing skills.

**Soft Skills:** Strong communication with internal software developers. Passion for learning.

**Culture:** Excellent customer service. Must be passionate about their software development and Nintendo's goals of pioneering the gaming industry.

1. **Sr Data Engineer**

**Technical Skills:** At least 7 years of experience with data warehouse technical architectures. Advanced knowledge and expertise with data modelling skills. Advanced SQL with Redshift, Oracle, and Columnar Databases. Experience with AWS services including S3, Data-pipeline and other big data technologies. Undergraduate degree in Computer Science, Statistics, Engineering, or Mathematics.

**Soft Skills:** Stakeholder communication and ability to work with business customers in understanding the business requirements and implementing data solutions. Strong time management skills.

**Culture:** Value stability, reliability, and a high quality product. Value best practices, agility, and recoverability.

1. **Data Engineer**

**Technical Skills:** At least 3 years of quantitative and qualitative experience in building ETL data flows in Big Data Ecosystem. Hands-on knowledge on Hadoop, Hive, Presto, AWS, and Redshift. Hands-on knowledge in using advanced SQL queries. Experience with scripting in Python.

**Soft Skills:** Communication skills to be able to work with business owners to develop and define key business uses and to build data sets that address them.

**Culture:** Value visualization, transparency, and clarity in their business operations with business owners and customers. Value recoverability and quality. Projects are small and controlled.

1. **DevOps Engineer**

**Technical Skills:** Strong experience with provisioning and configuration management tools. Experience managing highly available and high traffic enterprise websites. Experience with cloud services such as AWS. Experience with build automation and continuous integration tools. Experience with monitoring and logging systems. Proficiency with server prototyping and virtualization tools.

**Soft Skills:** Collaboration with multiple teams at the same time. Ability to analyze new and existing products for improvements. Participate in project planning discussions.

**Culture:** Value partnership and cooperation. Value streamlined systems that are highly tested. Empower customers to give them a better experience.

1. **Contract - Software Engineer (NTD)**

**Technical Skills:** At least three years of C/C++ or C# experience. Experience in WPF. Experience in UI design. Experience reading assembly code. Ability to read and write Japanese. Bachelor's degree in Computer Science or a related field.

**Soft Skills:** Excellent communication skills. A passion for tool development. Ability to communicate effectively with customers, so that customer-facing manuals and documentation is strong.

**Culture:** Value diversity but require some uniformity. The job is open to anyone who has the qualification, but that person must also read and write Japanese.

1. **Software Engineer, Multimedia (NTD)**

**Technical Skills:** At least three years of experience in software development. Excellent programming skills in C and C++. Strong working knowledge of video and audio processing including compression, transport, and rendering of media data. Experience with real-time and/or embedded system with constrained resources. Experience writing and debugging multi-process and multi-threaded applications.

**Soft Skills:** Fast learner. Creative eye for solutions. Prioritize tasks to enable a high level of efficiency.

**Culture:** Value learning on the job and independent time management. Nintendo has a philosophy of no solution being perfect.

1. **Data Engineer**

**Technical Skills:** At least three years of quantitative and qualitative experience in building ETL data flows in Big Data Ecosystem. Experience in working with data visualization tools such as Tableau. Prior experience with marketing data is preferred. Experience in testing and monitoring data for anomalies and rectifying them.

**Soft Skills:** Excellent communication skills. Creativity to be able to visualize data in new and interesting ways. Work with business customers in understanding the business requirements and implementing data solutions. Small project management.

**Culture:** Value transparency in their work flow. Value shared responsibility and independence of their work staff.

1. **Splunk Engineer**

**Technical Skills:** At least three years of related Splunk experience. Proven experience with work on complex Splunk issues where analysis of situations or data requires an in-depth evaluation of variable factors. Requires understanding of core infrastructure concepts such as networking, storage and how systems interact.

**Soft Skills:** Participates in a 24/7 on call cycle. Must provide guidance and mentorship for data analysis projects. Requires communication to partner with security team.

**Culture:** Nintendo values communication between their teams. Values prototyping and testing. Failure is an accepted consequence of risk taking.

1. **Contract - Network Stack Software Engineer (NTD)**

**Technical Skills:** Undergraduate degree in Computer Science. At least three years developing in C or C++. Solid understanding of synchronization mechanisms such as events, mutex, locks, and semaphores. Understanding POSIX socket API.

**Soft Skills:** Willing to learn on the job about network protocols. Must be able to analyze reports on bugs and traces. Ability to maintain documentation.

**Culture:** Nintendo wants their employees to be constantly learning. Nintendo wants their employees to have a general understanding of all their operations. Nintendo values documentation and transparency.

**Anya’s Job Descriptions**

**Summary of the 10 Job Descriptions**

**Tech Skills:** A majority (~80%) of the job descriptions require C/C++, with a few outliers in Java, C#, or any object oriented language. All job descriptions request a Bachelor’s minimum in Computer Science or a related field, or relevant experience. A few prefer a Master’s. Most of the descriptions required around 3 to 5 years experience in a programming language, with a few going as low as 1 year experience, some up to 7 years experience.

**Soft Skills:** Communication ranks as the top requested soft skill, as many of the job descriptions imply that you will be working with others, sometimes even making presentations or hosting workshops. Leadership is a soft skill requested in many of the senior positions, as they will be leading teams of younger developers. Creative thinking may be required in many of the job descriptions, since they require applicants to demonstrate the ability to design systems and technology solutions.

**Culture:** The culture given off from the Nintendo job descriptions shows that they are an environment open to teaching their employees to help them further their potential. They also come across as being very proud of their innovation in the interactive entertainment industry and for making high-quality products. A few posts might suggest a difficult work-life balance, with some positions requiring a 24/7 on-call cycle.

1. **Senior Java Engineer**

**Tech Skills:** 7 years experience in software development, Bachelor’s in C.S. or STEM field (or equivalent experience), software development practices, post-graduate coursework, create test scenarios, design and deploy technology solutions.

**Soft Skills:** Define technical needs of the organization and recommend solutions for the organization, provide instructions for others on a day-to-day need, network with key contacts outside their area of expertise. Communication, leadership.

**Culture:** Nintendo prides itself on being a pioneer in interactive entertainment and for creating industry icons and household names.

1. **Software Engineer (NTD)**

**Tech Skills:** Strong knowledge of software development, experience programming embedded and application software, C/C++ programming skills plus another language, skills in client/server based software creation, technical writing skills, strong system design and debugging skills, Bachelor’s in C.S. or C.E. (or equivalent experience).

**Soft Skills:** Be able to share expertise on Nintendo systems, create content and present workshops, create documents that facilitate efficient game development. Leadership, communication, organization.

**Culture:** Solve the hardest problems, while also educating new developers. Want people who are ready to help developers create the “best possible experiences.”

1. **Senior DevOps Engineer**

**Tech Skills:** 7 years experience in software development, high level proficiency in two programming language, proficient in server operating system families, operating system knowledge, server prototyping and visualization tools, version control tools, high experience with SDLC processes, experience with networking equipment, Bachelor’s in C.S. or STEM field (or equivalent experience).

**Soft Skills:** Partner with development teams, lead and direct efforts for all phases of product life cycle, assisting project managers, coaching junior developers, perform peer reviews and offer alternative solutions, serve as a representative for the team in many meetings and business manners, work with management to ensure projects are on track. Leadership, communication.

**Culture:** There is a suggestion of a potentially unpleasant work-life balance with the duty of participating in a “24/7 on-call cycle to support and troubleshoot products.”

1. **CONTRACT - Network Stack Software Engineer (NTD)**

**Tech Skills:** Reading/learning functionality of existing software, maintaining existing test software and writing new test software, Bachelor’s. in C.S., 3 years experience in C/C++, solid understanding of synchronization mechanisms

**Soft Skills:** Very few are suggested, this is mostly a tech-skills-focused job description, possibly because it is for contract work. They require a “willingness to learn about network protocols.”

**Culture:** Not much is said about the culture in this post, besides the general boilerplate message about Nintendo being a “worldwide pioneer in the creation of interactive entertainment.”

1. **CONTRACT - Security Software Engineer (NTD)**

**Tech Skills:** Conducting security reviews of software components, analyzing security breaches, offensive hacking, using IDA Pro to reverse engineer malicious binary images, degree in C.S., E.E., or C.E., proficiency in C/C++, experience with assembly language, experience with kernel/boot/driver software, experience with cryptography.

**Soft Skills:** Not much is said about soft skills in this application, again because I think it is a contract position. They do mention a “willingness to learn” about cryptography. Being able to think creatively would be important.

**Culture:** Not much is said about culture, but they have a sentence at the end that they are an equal opportunity employer and they value diversity and celebrate strengths.

1. **CONTRACT - Software Engineer, Multimedia (NTD)**

**Tech Skills:** Design/develop/debug software, implement/develop multimedia features, 3+ years software development experience, programming skills in C and C++, experience with real-time/embedded systems, experience writing/debugging multi-process and multi-threaded applications, Bachelor’s in C.S. or a related field with a Master’s preferred.

**Soft Skills:** Constantly learning and looking for improved solutions. Again, not many soft skills are suggested. Creativity.

**Culture:** General boilerplate about Nintendo and being an equal opportunity employer.

1. **CONTRACT - Software Engineer (NTD)**

**Tech Skills:** Collect and visualize performance data, propose/implement new features, write feature descriptions, Bachelor’s in C.S. or a related field, 3 to 5 years experience in C/C++ or C#, experience in WPF, UI design, shipping products, and reading assembly code.

**Soft Skills:** “Excellent communication skills” is listed as a requirement.

**Culture:** A preferred trait is the ability to read and write Japanese, which implies the company interacts globally with their company in Japan, and not only with Nintendo of America.

1. **Splunk Engineer**

**Tech Skills:** 3+ years experience with Linux and Splunk, implement technical infrastructure based on “functional requirements,” integrates existing systems together, understanding of core infrastructure concepts like “networking, storage and how systems interact,” Bachelor’s in C.S., C.E., E.E, I.T., or a related field or equivalent experience.

**Soft Skills:** Be able to advise and cross-train team members, be able to provide guidance on data analysis. Communication, leadership.

**Culture:** This one also suggests a potentially bad work-life balance with another “24/7 on-call cycle” to support and troubleshoot products.

1. **Sr Security Software Engineer (NTD)**

**Tech Skills:** Conducting security reviews of existing systems, analyzing past security breaches, experience with tools like IDA Pro, hacking and creating formal penetration tests, research/design/develop security technologies, degree in C.S., C.E., or E.E., Master’s preferred, experience with ARM/x86 assembly language, experience with kernel/boot software.

**Soft Skills:** A willingness to learn. Creative thinking.

**Culture:** Nothing specific is mentioned about culture here, besides the standard Nintendo paragraph at the start of the job description.

1. **Associate Software Engineer (NTD)**

**Tech Skills:** Creating tutorials, demos, and documents for Nintendo platform development, design/develop/support various software development tools, 1 to 3 years experiences, Bachelor’s in C.S. or C.E. required, programming skills in C/C++, strong system design, problem solving, and debugging skills, knowledge in programming embedded/application software.

**Soft Skills:** Communication skills seem important, because you will be answering technical questions and advising developers. Also involves creating content and presenting workshops and technical conferences. Leadership, communication, organization.

**Culture:** A snippet talks about how the members of this team are engineers and educators, that they want to make sure developers create the “best possible experiences.”

**Jordan’s Job Descriptions**

1. **Security Software Engineer Tech Skills:** C/C++ proficiency, x86 Assembly/ARM experience, Kernal/Boot/Driver software experience. **Soft Skills:** Willingness to learn new tech skills, ability to review existing software for company, and ability to work together with co-workers to reverse engineer malicious software and offensively hack software. **Culture:** Not much culture is discernible from the posting, the only noticeable thing is the summary of Nintendo history so I think there’s a focus on company accomplishment and standards.
2. **Software (Build) Engineer Tech Skills:** 3+ years of software engineer experience, programming skills in Java/C/C++, development experience in Unix/Linux/Windows, experience in continuous integration software, technical writing skills, system design skills, and debugging skills. **Soft Skills:** Communication skills to acquire requirements on build/test jobs, participation in testing process, **Culture:** Same as #1 however there appears to be more hinted importance to communication between departments for testing.
3. **Software (Multimedia) Engineer Tech Skills:** 3+ years of software development, programming skills in C++ and C, knowledge of video and audio processing, experience with real-time/embedded systems, experience in writing and debugging multi process and multi threaded applications, experience in multimedia frameworks such as GStreamer/DirectShow/Stagefright. **Soft Skills:** the ability to learn and search for more solutions. **Culture:** Same as #2, responsibility involves maintaining multimedia software so being able to be open for suggestions and discussion is crucial.
4. **Senior Software Engineer Tech Skills:** 5+ years of software development, experiences in developing debug tools, experience in debugging embedded systems with LLDB/GDB, experience with compilers, linkers, and object file formats, experience in C/C++ and Python, ELF/DWARF experience, experience with software based network programming, experience in embedded SOC architectures, and experience in Windows/Linux/Mac OS kernals. **Soft Skills:** Leadership skills, management skills, independance. **Culture:** Passion for job and related skills.
5. **Splunk Engineer Tech Skills:** ~3+ years of splunk experience, experience on complex splunk issues, experience on networking, storage, and how systems interact. **Soft Skills:** Cooperation with partners, leadership skills, participation on 24/7 on call support. **Culture:** Passion for job and skills much like #4, collaboration as a standard and discussion.
6. **Data Engineer Tech Skills:** 3+ years in quantitative and qualitative experience in building ETL data flows in Big Data Ecosystem, experience in Hadoop, Hive, Presto, AWS, and Redshift, experience in advanced SQL queries, experience in scripting, experience in testing data for anomalies, experience in data visualization tools, and experience in marketing data. **Soft Skills:** Communication skills and project management skills. **Culture:** Same as #1.
7. **Senior Security Engineer Tech Skills:** Experience in C/C++, experience in ARM/x86 Assembly Language, and experience in developing kernals. **Soft Skills:** Software analyzation. **Culture:** Same as #1.
8. **Network Stack Engineer Tech Skills:** 3+ years in C/C++ development, experience in POSIX socket API, experience in debugging multi threaded software, experience in real-time/embedded systems. **Soft Skills:** Self-learning skills. **Culture:** Same as #1
9. **Security Software Engineer Tech Skills:** Experience in C/C++, experience in ARM/x86 Assembly Language, experience in kernal/boot/drive software development. **Soft Skills:** Self-learning skills, software analyzation. **Culture:** Same as #1.

**Kayla’s Job Descriptions**

1. Software Engineer (NTD)

**Technical Skills:** The technical skills required for the software engineering position at Nintendo includes a bachelor's or equivalent working experience and 3-5 years of experience with C/C++/C#.

**Soft Skills:** Excellent communication skills and a passion for tool development.

**Culture:** Having the need for communication skills tells me that this is going to be an environment that is team heavy. There is also likeness for people who speak English and Japanese, which gives me the impression that the workplace may be diverse.

2. Sr Software Engineer (NTD)

**Technical Skills:** Other than 5+ years of experience working as a software engineer, Nintendo also wants their Sr Software Engineer to have an undergraduates degree in Software Engineering. They want experience in debugging and proficiency in C/C++ and Python scripting. They also want experience in operating systems!

**Soft Skills:** The ability to self-manage, communicate, and adapt to fast paced, high demand environments with changing priorities and direction.

**Culture:** One requirement is that the person has a valid passport, probably for traveling to Japan, where Nintendo’s headquarters are located. Although this job posting does not mention the need to know Japanese, I am under the impression that they want that. The soft skills in this position probably has to adapt to Japanese social culture.

3. CONTRACT - Network Stack Software Engineer (NTD)

**Technical Skills:** A bachelors in computer science, 3+ years developing in C/C++, standard network protocols, the POSIX socket API, and debugging are areas of technical knowledge required for this position.

**Soft Skills:** A willingness to learn on the job.

**Culture:** This position seems low in demand of the social skills required for the previous 2 positions, giving me the impression that this is probably are more independent job where someone is contracted out for one specific task and not to develop on a team.

4. CONTRACT - Software Engineer (NTD)

**Technical Skills:** A bachelor's degree or equivalent work experience and 3-5 years of experience in C/C++/C#.

**Soft Skills:** Excellent communication skills and a passion for tool development.

**Culture:** This contracted software engineering position has the same description as the software engineering position. Since this is contracted out, I’m under the impression that their soft skills might not be as heavily required and the culture of this position is less demanding social-wise.

5. CONTRACT - Software Engineer, Multimedia (NTD)

**Technical Skills:** 3+ years of development experience, excelling programming skills in C/C++, working knowledge of video and audio processing, experience in embedded systems and debugging are required for the technical skills.

**Soft Skills:** The ability to be constantly learning.

**Culture:** The description of this position isn’t soft skill heavy, but it does mention that the multimedia team is looking for someone, which tells us that this person would be required to work on a team. I think this position obviously would like to have someone who is experienced with working on a team.

6. CONTRACT - Security Software Engineer (NTD)

**Technical Skills:** A degree in CE, CS, or EE; proficiency in C/C++, experience with ARM, and experience developing Kernel or boot or drive software.

**Soft Skills:** A willingness to learn about cryptography and public key infrastructure.

**Culture:** Since a willingness to learn is required, I believe that the culture of this position might be in a team environment where developers help each other learn new material.

7. Data Engineer

**Technical Skills:** 3+ years of qualitative or quantitative experience in building ETL data flows in Big Data ecosystems; hands on knowledge of Hadoop, Hive, Presto, AWS Platform, Redshift; experience with SQL queries; experience with Python scripting; and a bachelor's degree or equivalent working experience in CS, Physics, Mathematics, Statistics, Engineering, or other related degrees.

**Soft Skills:** Team and analytical skills.

**Culture:** The position is on a cross-functional team of engineers and involves analyzing customer interaction, which tells me that good social skills and an emotionally intelligent understanding of people is good to have in this environment.

8. Splunk Engineer

**Technical Skills:** Typically 3+ years experience with Splunk and a bachelor's degree, or equivalent work experience, in a related degree.

**Soft Skills:** The ability to collaborate with teams.

**Culture:** Since this is a position that required 24/7 on call availability, I am under the impression that the culture might feel demanding to the employee.

9. Sr Security Software Engineer

**Technical Skills:** A degree in CE, CS, or EE (preferably a masters), proficiency in C/C++, experience in ARM, and experience with Kernel and/or boot software.

**Soft Skills:** Able to learn, can work on a team

**Culture:** There are many areas of knowledge that Nintendo wants the person in this position to be willing to learn, which makes me believe that that environment might be demanding when it comes to learning new skills applicable to Nintendo’s digital security environment and processes.

10. Software Engineer (Build Engineer) (NTD)

**Technical Skills:** 3+ years of related experience, strong programming skills (C/C++/C#/Java), strong knowledge of software product development, development experience in Unix/Linux/Windows, technical writing skills, debugging skills, and an undergraduate degree in a related field are required for the technical skills of this position.

**Soft Skills:** Strong communicator, cares deeply about providing excellent customer service, and has a passion for learning.

**Culture:** The person for this position doesn’t need to have strict experience in one area, but should be well versed in development. The ability to communicate and learn seems to be a must.

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# **David Nguyen’s Job Summaries**

**1. Sr Security Software Engineer (NTD)**

**Technical Skills**: Degree in CE CS or EE required. MS degree preferred. Proficient in C/C++.Experience with ARM and/or x86 assembly language. Experience developing kernel and/or boot software

**Soft Skills**: Able and willing to learn and apply knowledge in Complex parts of a kernel such as MMU and IOMMU page tables, system calls, scheduler, secure boot implementations, Cryptography and public key infrastructure (PKI), and SOC security technologies.

**Culture**: Ability to research, design, and develop security technologies on a team or alone.

**2. Associate Software Engineer (NTD)**

**Technical Skills**: One to three years of experience. Programming skills in C/C++. Undergraduate CS or CE degree required.

**Soft Skills**: Knowledge and understanding of software product development, related tools and testing paradigms. Knowledge of programming embedded or application software for video game platforms and related development tools. Technical writing skills. Knowledge of software project tracking and source control. Strong systems design, problem solving and debugging skills.

**Culture**: Public speaking and communication skills as there is a need to create tutorials, demos, and documentation for Nintendo platform.

**3. CONTRACT - Software Engineer (NTD)**

**Technical Skills**: Bachelor's degree, or equivalent work experience, in Computer Science or a related field. Three to five years of C/C++ or C# experience. Experience in WPF. Experience shipping products to external customers. Experience reading assembly code.

Experience in UI design.

**Soft Skills**: Excellent communication skills. A passion for tool development. Ability to read and write Japanese. (only becomes a plus at JLPT N2).

**Culture**: Japanese culture tends to be more inclusive if you have a good grasp on the language and communication barriers.

**4. CONTRACT - Software Engineer, Multimedia (NTD)**

**Technical Skills**: 3+ years of software development. Excellent programming skills in C and C++. Strong working knowledge of video and audio processing including compression, transport, and rendering of media data. Experience with real-time and/or embedded systems with constrained resources. Experience with any multimedia framework like GStreamer, DirectShow, Stagefright, etc., is very desirable. BS degree in Electrical Engineering, Computer Science or related field; MS preferred.

**Soft Skills**: Implement or prototype multimedia features for capture, compression, streaming and rendering of audio and video on different platforms. Prioritize tasks to enable high level of efficiency. Constantly learning and looking for improved solutions

**Culture**: Does not specify but multimedia typically involves work that you have to be proficient working by yourself.

**5. Software Engineer (Build Engineer) (NTD)**

**Technical Skills**: 3+ years related experience.Strong Knowledge and understanding of all aspects of software product development, related tools and testing paradigms. Strong programming skills in at least one modern programming language (e.g., C++, C#, Java or C). Development experience on Unix, Linux or Windows. Knowledge of continuous integration software (e.g., TeamCity, Jenkins). Undergraduate degree in Computer Science, Electrical Engineering or related field.

**Soft Skills**: Technical writing skills. Strong systems design, problem solving and debugging skills. Communication skills.

**Culture**: Ability to travel 10% of the time and understand other cultures and communicate with them.

**6. CONTRACT - Security Software Engineer (NTD)**

**Technical Skills**: Degree in CE, CS or EE preferred. Proficient in C/C++. Experience with ARM and/or x86 assembly language. Experience developing kernel or boot or driver software. Experience or at least willingness to learn about cryptography and public key infrastructure (PKI).

**Soft Skills**: Ability to research, design and develop on spare time to learn about security technology.

**Culture**: American culture as it is located in Redmond, WA. Ability to communicate on a team.

**7. Data Engineer**

**Technical Skills**: 3+ years of quantitative and qualitative experience in building ETL data flows in Big Data Ecosystem. Hands-on knowledge on Hadoop, Hive, Presto, AWS platform, Redshift. Hands-on knowledge in using advanced SQL queries (analytical functions), experience in writing and optimizing efficient SQL queries Experience with scripting (Python experience is a strong plus). Experienced in testing and monitoring data for anomalies and rectifying them.

**Soft Skills**: Excellent communication skills to be able to work with business owners to develop and define key business uses and to build data sets that address them.

**Culture**: Communication is key as you need to be able to communicate complicated data into simpler terms for business owners.

**8. Data Engineer**

**Technical Skills**: 3+ years of quantitative and qualitative experience in building ETL data flows in Big Data Ecosystem. Hands-on knowledge on Hadoop, Hive, Presto, AWS platform, Redshift. Hands-on knowledge in using advanced SQL queries (analytical functions), experience in writing and optimizing efficient SQL queries Experience with scripting (Python experience is a strong plus). Experienced in testing and monitoring data for anomalies and rectifying them.

**Soft Skills**: Excellent communication skills to be able to work with business owners to develop and define key business uses and to build data sets that address them.

**Culture**: Communication is key as you need to be able to communicate complicated data into simpler terms for business owners.

**9. CONTRACT - Network Stack Software Engineer (NTD)**

**Technical Skills**: B.S. in Computer Science. At least 3 years’ experience developing in C or C++.Solid understanding of synchronization mechanisms such as events, mutex, locks, and semaphores. Knowledge and/or experience of standard network protocols (TCP/IP, TLS/SSL, HTTP, HTTPS). Understanding of POSIX socket API. Experience developing or debugging multithreaded software. Experience with real-time and/or embedded systems with constrained resources.

**Soft Skills**: Technical writing skills. Work with teams to create a proper network design, test, and user documentation.

**Culture**: Contract position may be treated differently from a regular position.

**10. CONTRACT - Front-End Web Developer**

**Technical Skills**: Two to four years related experience. In-depth knowledge of HTML5, JavaScript, JSON, AJAX, CSS3 and mobile support Expertise in interaction design, usability, and information architecture required. In-depth knowledge and experience with standard design software including Sketch, PhotoShop and Illustrator. Ability to rapidly prototype sites is required.

**Soft Skills**: Ability to work in a fast-paced environment with fluctuating priorities and deadlines. Effective communication skills

**Culture**: Fast-paced culture with not much time to develop the relationships with co-workers.

# **Gabriel’s Job Descriptions**

**Job Titles:**

1. Contract – Software Engineer
2. Contract – Network Stack Software Engineer
3. Contract – Network Stack Software Engineer
4. Sr. Software Engineer
5. Contract – Security Software Engineer
6. Software Engineer
7. Sr. Security Software Engineer
8. Senior Java Engineer
9. Associate Software Engineer
10. Software Engineer (Build Engineer)

**Tech Skills:**

* Every job, required at least an undergrad degree in Computer Science or a related field. This includes the contract jobs, as well as the associate job too.
* With the exception of the Java position they all wanted programming skills of various degree in C/C++, with most saying either “3 years” or that the applicant be “proficient” in the C family of languages. One unique requirement was that job V (Contract – Security Software Engineer) required the applicant to have experience with, “ARM and/or x86 assembly languages”.
* Two of the positions want the applicant to have experience with developing “kernel or boot driver experience”. Interestingly enough these were the same positions that wanted the applicant to have experience with x86 assembly language too.

**Soft Skills:**

* All of the positions want the applicant to be willing to learn. There is a strong desire for each person who gets hired at Nintendo to be willing to not rest of their laurels and to continue to expand their knowledge and their technical skills.
* Every position wanted the person to be able to participate in meetings and to be able to speak-up if they have any ideas to bring to the table.
* A couple of the positions mention that they want the applicant to have a valid visa or passport so that implies some sort of international travel, presumably to Japan where the Nintendo headquarters is located.

**Culture:**

* None of the jobs had any specific sections that focused on the culture at Nintendo. They all make mention of Nintendo being the “worldwide pioneer in the creation of interactive entertainment”
* Based on the history of the company it would be fair to say that they value innovation, and are willing to “go left when everyone goes right”. Most of the modern gaming consoles focus on being the most powerful, and being able to run their games at the highest resolution, where Nintendo has focused instead of making a portable home console, you can play anywhere.

**Part 2 - Intellectual Properties**

**Nintendo trademarks:** 1,226 total trademarks according to the United States Patent and Trademark Office, with 474 active trademarks. Notable trademarks are Pokemon, Mario, Nintendo Switch, The Legend of Zelda, Donkey Kong, Kirby, and Wii.

**Nintendo patents:** 481 according to the Patent Database, with the Nintendo website listing the most notable 14 patents as the Nintendo Switch, Nintendo Switch Pro Controller, Joy-Con, Joy-Con Charging Grip, Joy-Con Wheel, Nintendo 2DS XL, Nintendo 3DS XL, Nintendo 3DS, Nintendo SNES Classic Edition, Nintendo NES Classic Edition, and Nintendo NES Classic Controller.

Our group found it interesting how Nintendo has nearly 500 patents, only 14 of which are considered extremely notable. Since Nintendo does not have 500 products, this suggests that Nintendo secures patents as a resource in order to maintain a competitive edge. Our team discussed that patents may be used by Nintendo to prevent competition, or for future ideas, inventions, and systems. Having a library of patents gives Nintendo control over their ability to freely innovate without the risk of legal battles. Furthermore, our group found it interesting how Nintendo has multiple patents for a single piece of hardware. For example, the wii-mote alone has multiple patents on just its integrated motion sensing technology.

* Source for trademarks: [http://tmsearch.uspto.gov](http://tmsearch.uspto.gov/bin/showfield?f=toc&state=4807%3Amx8uta.2.1&p_search=searchstr&BackReference=&p_L=100&p_plural=yes&p_s_PARA1=nintendo&p_tagrepl~%3A=PARA1%24ON&expr=PARA1+or+PARA2&p_s_PARA2=&p_tagrepl~%3A=PARA2%24ALL&a_default=search&f=toc&state=4807%3Amx8uta.2.1&a_search=Submit+Query)
  + Search query for all Nintendo trademarks: (nintendo)[ON]
  + Search query for live Nintendo trademarks: (nintendo)[ON] AND LIVE[LD]
* Source for common patents: <https://www.nintendo.com/patents>
* Source for patents: <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fnetahtml%2FPTO%2Fsearch-adv.htm&r=0&p=1&f=S&l=50&Query=AANM%2FNintendo&d=PTXT>