**Software Development and Programming:**

* Java Developer
* Full Stack Developer
* Front End Developer
* Python Developer
* Node.js Developer
* Backend Developer (Node.js)
* Full Stack JavaScript Developer
* React Developer
* Angular Developer
* Pega Developer
* Embedded Software Developer
* Blockchain Developer

**Mobile Application Development:**

* Mobile App Developer
* iOS Developer
* Android Developer
* Mobile App Developer (Cross-Platform)
* React Native Developer
* Flutter Developer

**Data Science and Analytics:**

* Data Scientist
* Data Analyst
* Machine Learning Engineer
* Bioinformatics Scientist
* Quantitative Analyst/Financial Engineer

**Cloud Computing / infra:**

* DevOps Engineer
* Cloud Engineer
* AWS Cloud Architect
* Azure Cloud Engineer

**System Administration:**

* Systems Administrator

**Quality Assurance and Testing:**

* Quality Assurance (QA) Tester
* QA Automation Engineer
* Performance Test Engineer
* Software Test Engineer

**UI/UX and Design:**

* UI/UX Designer

**Cybersecurity:**

* Cybersecurity Analyst

**Database Management:**

* Database Administrator

**Business and Management:**

* IT Project Manager
* Business Analyst
* Technical Writer

**Embedded Systems and IOT**

* Embedded Systems Engineer
* IOT developers
* **Java Developer**
  + **Description**: A Java Developer is responsible for designing, developing, and managing Java-based applications.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science or related field.
    - Proficiency in Java, with a good knowledge of its ecosystems.
    - Understanding of object-oriented programming.
    - Familiarity with concepts like JVM, JDBC, and RESTful.
* **Spring Boot Backend Developer**
  + **Description: A Spring Boot Backend Developer specializes in building and maintaining server-side applications using the Spring Boot framework. This role involves developing RESTful services, integrating databases, and handling server-side logic efficiently.**
  + **Qualifications/Requirements:**
    - **Bachelor’s degree in computer science, information technology, or a related field.**
    - **Strong proficiency in Java and Spring Framework, specifically Spring Boot.**
    - **Experience with building RESTful APIs and microservices architecture.**
    - **Knowledge of relational databases (like MySQL, PostgreSQL) and ORM technologies (like Hibernate).**
    - **Familiarity with Maven or Gradle build tools.**
    - **Understanding of Java-based web services, JSON, and XML data formats.**
    - **Experience with version control systems, such as Git.**
    - **Knowledge of JUnit and Mockito for unit testing.**
    - **Understanding of containerization and orchestration technologies like Docker and Kubernetes is a plus.**
* **Full Stack Developer** 
  + **Description**: A Full Stack Developer works on both the front-end and back-end portions of an application.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science or related field.
    - Knowledge of front-end technologies (like HTML, CSS, JavaScript) and back-end languages (such as Java, Python, Node).
    - Frameworks – Spring / Express js / React / Angular
    - Experience with database technology such as MySQL, Oracle, and MongoDB.
    - Understanding of server, network, and hosting environments.
* **Node.js Developer**
  + **Description**: Node.js Developers are responsible for writing server-side web application logic in JavaScript and/or variants of it, such as TypeScript. They usually develop back-end components, connect the application with third-party web services, and support front-end developers by integrating their work with Node.js applications.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science or related field.
    - Proficient understanding of Node.js and frameworks available for it (like Express, StrongLoop).
    - Good understanding of server-side templating languages and server-side CSS preprocessors.
    - Basic understanding of front-end technologies, such as HTML5 and CSS3.
* **Backend Developer (Node.js)**
  + **Description**: Backend Developers specializing in Node.js focus on server-side logic, ensuring the high performance and responsiveness of the application to requests from the front-end.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, information technology, or a related field.
    - Strong proficiency with JavaScript and Node.js and its frameworks.
    - Understanding of asynchronous programming, its quirks, and workarounds.
    - Proficient understanding of code versioning tools, such as Git.
* **Python Developer**
  + **Description**: A Python Developer is responsible for writing server-side web application logic, developing back-end components, connecting applications with other web services, and supporting front-end developers by integrating their work with Python applications.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, engineering, or a related field.
    - Strong proficiency in Python, with a good understanding of its ecosystems.
    - Familiarity with some ORM (Object Relational Mapper) libraries.
    - Knowledge of user authentication and authorization between multiple systems, servers, and environments.
* **Python Web Developer**
  + **Description**: Python Web Developers are responsible for managing the interchange of data between the server and the users, primarily focusing on the development of all server-side logic, ensuring high performance and responsiveness to requests from the front-end.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science or related field.
    - Strong understanding of web frameworks like Django or Flask.
    - Basic understanding of front-end technologies, such as JavaScript, HTML5, and CSS3.
    - Proficiency in database technologies, both relational (like PostgreSQL, MySQL) and NoSQL (like MongoDB).
* **PHP Developer**
  + **Description: A PHP Developer is responsible for writing server-side web application logic. They typically develop back-end components, connect the application with other web services, and support front-end developers by integrating their work with the PHP application.**
  + **Qualifications/Requirements:**
    - **Bachelor's degree in computer science, information technology, or a related field.**
    - **Strong knowledge of PHP coding and web-based applications.**
    - **Good understanding of database technologies, such as MySQL, Oracle, and MariaDB.**
    - **Experience with PHP web frameworks such as Laravel, Symfony, or CodeIgniter.**
    - **Knowledge of front-end technologies including CSS3, JavaScript, and HTML5.**
    - **Understanding of object-oriented PHP programming.**
    - **Familiarity with limitations of PHP as a platform and its workarounds.**
    - **Experience in common third-party APIs (Google, Facebook, eBay, etc.).**
    - **Familiarity with version control systems such as Git.**
* **PHP Backend Developer**
  + **Description: A PHP Backend Developer focuses on server-side components and data integration. Their main role is to develop and maintain the technology that powers the user interfaces and user experiences of a website.**
  + **Qualifications/Requirements:**
    - **Bachelor's degree in computer science or a related field.**
    - **In-depth knowledge of PHP programming and experience with PHP frameworks like Laravel or CodeIgniter.**
    - **Strong understanding of back-end data storage solutions, like relational databases (MySQL, PostgreSQL) and NoSQL databases.**
    - **Proficiency in building and consuming RESTful APIs.**
    - **Knowledge of coding best practices and understanding of web application security challenges.**
    - **Ability to write clean, readable, and maintainable code.**
    - **Experience with unit and integration testing.**
    - **Knowledge of JavaScript and other web technologies is a plus.**
* **Laravel Developer**
  + **Description: Specializing in the Laravel framework, these developers are responsible for developing web applications using Laravel's model-view-controller (MVC) pattern.**
  + **Qualifications/Requirements:**
    - **Bachelor’s degree in computer science or equivalent practical experience.**
    - **Proficient in PHP and Laravel framework.**
    - **Understanding of MVC design patterns and PHP object-oriented programming.**
    - **Knowledge of front-end technologies, such as JavaScript, HTML5, and CSS3.**
    - **Strong knowledge of the Laravel ecosystem (Eloquent, Blade, Laravel's package development, etc.).**
    - **Experience with SQL/NoSQL databases.**
    - **Familiarity with version control tools, preferably Git.**
    - **Ability to integrate multiple data sources and databases into one system.**
* **Full Stack JavaScript Developer MERN / MEAN**
  + **Description**: Full Stack JavaScript Developers are proficient in both front-end and back-end development, often using Node.js for the server-side logic and a JavaScript framework like Angular or React for the front-end.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science or a similar field.
    - Strong understanding of JavaScript, including DOM manipulation and the JavaScript object model.
    - Proficiency in Node.js and a front-end framework like Angular, React, or Vue.js.
    - Familiarity with RESTful APIs and modern authorization mechanisms, such as JSON Web Token.
* **Front End Developer**
  + **Description**: A Front End Developer focuses on building the visual aspects of a website that users interact with.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science or related field.
    - Strong skills in HTML, CSS, and JavaScript.
    - Familiarity with JavaScript frameworks like React or Angular.
    - Good understanding of SEO principles.
* **React Developer**
  + **Description**: A React Developer specializes in building user interface components and implementing them following well-known React.js workflows (such as Flux or Redux).
  + **Qualifications/Requirements**:
    - Proficiency in JavaScript, including DOM manipulation and the JavaScript object model.
    - Strong experience with React.js and popular React.js workflows (such as Flux or Redux).
    - Familiarity with typescript
    - Familiarity with newer specifications of EcmaScript. (ES5 /ES6)
    - Experience with data structure libraries (e.g., Immutable.js).
* **Angular Developer**
  + **Description**: An Angular Developer is responsible for developing and designing front-end web architecture, ensuring the responsiveness of applications, and working alongside graphic designers for web design features.
  + **Qualifications/Requirements**:
    - Proficiency in Angular practices and commonly used modules based on extensive work experience.
    - Creating self-contained, reusable, and testable modules and components.
    - Proficiency in JavaScript and HTML5; deep knowledge of Angular practices.
    - Validating user actions on the client side and providing responsive feedback.
* **Website Developer**
  + **Description: A Website Developer is responsible for designing, creating, and maintaining websites. This role involves a combination of programming and layout/design skills to produce web pages that meet client specifications.**
  + **Qualifications/Requirements:**
    - **Bachelor's degree in computer science, web development, or a related field.**
    - **Proficiency in front-end technologies, including HTML, CSS, and JavaScript.**
    - **Experience with responsive and adaptive design.**
    - **Understanding of key website design principles and SEO optimization.**
    - **Familiarity with graphic design software (e.g., Adobe Photoshop).**
    - **Knowledge of back-end programming languages (e.g., PHP, Python) and frameworks (e.g., Django, Rails) is a plus.**
    - **Experience with content management systems (CMS).**
    - **Good problem-solving skills and ability to work under tight deadlines.**
* **WordPress Developer**
  + **Description: A WordPress Developer specializes in creating and implementing websites using the WordPress platform. This includes both back-end (server-side) and front-end (client-side) development.**
  + **Qualifications/Requirements:**
    - **Bachelor’s degree in computer science or a related field, or equivalent experience.**
    - **Strong proficiency in PHP, the primary language used in WordPress.**
    - **In-depth knowledge of WordPress, including themes, plugins, and widget development.**
    - **Understanding of front-end technologies, such as HTML5, CSS3, JavaScript, and jQuery.**
    - **Experience in building user interfaces for websites and/or web applications.**
    - **Familiarity with SQL and interacting with database systems like MySQL.**
    - **Knowledge of how to interact with RESTful APIs and formats (JSON, XML).**
    - **Understanding of website architecture and aesthetics.**
    - **Experience with responsive and adaptive design.**
    - **Good understanding of website security principles.**

**Pega Developer / Code less platforms + AI**

* + **Description**: A Pega Developer works on developing and implementing applications using Pega solutions, a platform known for building enterprise-level applications with minimal coding.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, software engineering, or related field.
    - Experience in developing applications using Pega PRPC.
    - Knowledge of Java and other related technologies.
    - Pega Certified System Architect (CSA) or Senior System Architect (CSSA) certification is advantageous.
* **Salesforce Developer**
  + **Description**: A Salesforce Developer creates and manages Salesforce applications to meet business needs.
  + **Qualifications/Requirements**:
    - Strong understanding of Salesforce platform and its capabilities.
    - Experience with Apex, Visualforce, and the Lightning Component Framework.
    - Knowledge of Salesforce best practices, UI design, and integration patterns.
    - Salesforce Developer Certification is often preferred.

**Mobile Application Development:**

* **Mobile App Developer**
  + **Description**: A Mobile App Developer specializes in creating software for mobile devices.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science or a related field.
    - Experience with mobile development languages (Swift for iOS, Kotlin/Java for Android).
    - Understanding of mobile user experience design.
    - Knowledge of the mobile development life cycle.
* **iOS Developer**
  + **Description**: iOS Developers are responsible for developing applications for Apple devices. They design and build the next generation of mobile applications using languages such as Swift or Objective-C.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, engineering, or a related field.
    - Proficiency in Swift or Objective-C.
    - Experience with iOS frameworks such as Core Data, Core Animation, etc.
    - Understanding of Apple’s design principles and interface guidelines.
* **Android Developer**
  + **Description**: Android Developers are responsible for developing applications for devices powered by the Android operating system. They primarily use Java or Kotlin for application development.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, software engineering, or related field.
    - Proficiency in Java and/or Kotlin.
    - Familiarity with RESTful APIs to connect Android applications to back-end services.
    - Strong knowledge of Android UI design principles, patterns, and best practices.
* **Mobile App Developer (Cross-Platform)**
  + **Description**: Cross-Platform Mobile App Developers create software that is compatible with multiple mobile operating systems, using frameworks like React Native or Flutter.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science or related field.
    - Experience with cross-platform mobile app development frameworks like React Native or Flutter.
    - Understanding of the full mobile development life cycle.
    - Strong knowledge of UI/UX standards and a good understanding of cross-platform development challenges.
* **React Native Developer**
  + **Description**: React Native Developers specialize in building mobile apps using the React Native framework. They combine the art of design with the art of programming, transitioning seamlessly between mobile and web platforms.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science or similar field.
    - Strong proficiency in JavaScript and understanding of React.js and its core principles.
    - Experience with popular React workflows (such as Flux or Redux).
    - Familiarity with native build tools, like XCode, Gradle (Android Studio).
* **Flutter Developer**
  + **Description**: Flutter Developers use Google's Flutter framework to create natively compiled applications for mobile, web, and desktop from a single codebase.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, software engineering, or related field.
    - Experience with Flutter and Dart for mobile, web, and desktop application development.
    - Knowledge of third-party libraries and APIs.
    - Good understanding of the full mobile development life cycle.

### **Cloud and Infrastructure**

**DevOps Engineer**

* + **Description**: A DevOps Engineer works on the operations of managing and deploying systems infrastructure and automating deployment processes.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, engineering, or related field.
    - Experience with deployment automation tools (like Jenkins, Puppet, Ansible).
    - Knowledge of Linux/Unix administration.
    - Familiarity with cloud services (AWS, Azure).

**AWS Cloud Architect**

* **Description**: Responsible for designing and implementing advanced cloud-based solutions on Amazon Web Services (AWS) and managing cloud infrastructures.
* **Qualifications/Requirements**:
  + Deep knowledge of AWS services and cloud architecture.
  + Experience in designing, deploying, and managing applications on AWS.
  + Proficiency in a scripting language, AWS CLI, and AWS APIs.
  + AWS certifications (e.g., AWS Certified Solutions Architect).

**Azure Cloud Engineer**

* **Description**: Specializes in deploying and managing applications and services on the Microsoft Azure platform.
* **Qualifications/Requirements**:
  + Strong knowledge of Microsoft Azure and its various services.
  + Experience in cloud computing, including storage, networks, and cloud-based applications.
  + Skills in automation and scripting, knowledge of Azure DevOps and Azure Automation.
  + Microsoft Azure certifications (e.g., Azure Solutions Architect).

**Oracle Cloud Infrastructure Engineer**

* **Description**: Focuses on designing, configuring, and managing resources in Oracle Cloud Infrastructure (OCI).
* **Qualifications/Requirements**:
  + In-depth understanding of Oracle Cloud Infrastructure.
  + Experience with cloud networking, storage, and virtualization.
  + Knowledge of Oracle-specific cloud technologies and tools.
  + Oracle Cloud Infrastructure certification is preferred.

**Google Cloud Platform (GCP) Engineer**

* **Description**: Designs and manages solutions on Google Cloud Platform, ensuring optimal use of GCP services.
* **Qualifications/Requirements**:
  + Proficient in GCP services and cloud architecture.
  + Experience in designing and deploying applications on GCP.
  + Understanding of cloud-native technologies and containerization.
  + Relevant GCP certifications (e.g., Professional Cloud Architect).

**Docker/Kubernetes Engineer**

* **Description**: Specializes in containerization and orchestration, using tools like Docker and Kubernetes.
* **Qualifications/Requirements**:
  + Strong experience with Docker containerization and Kubernetes orchestration.
  + Knowledge of microservices architecture and cloud-native applications.
  + Experience in CI/CD pipelines and DevOps practices.
  + Understanding of network configurations, security, and storage options in a containerized environment.

**DevOps Engineer specialized**

* **Description**: Focuses on automating deployment processes, managing infrastructure, and ensuring continuous integration and delivery.
* **Qualifications/Requirements**:
  + Experience with deployment automation tools (Jenkins, Puppet, Ansible).
  + Proficiency in Linux/Unix administration.
  + Strong understanding of CI/CD practices and version control (Git).
  + Knowledge of scripting languages like Python, Bash.
  + **Jenkins/CI/CD Specialist**
    - **Description**: Specializes in continuous integration and continuous delivery/deployment using Jenkins and other CI/CD tools.
    - **Qualifications/Requirements**:
      * Extensive experience with Jenkins for building CI/CD pipelines.
      * Knowledge of automation and scripting languages.
      * Understanding of version control systems and build management.
      * Familiarity with containerization and orchestration tools.
  + **Ansible Automation Engineer**
    - **Description**: Focuses on automating IT processes using Ansible.
    - **Qualifications/Requirements**:
      * Proficient in Ansible for IT automation and configuration management.
      * Understanding of infrastructure as code and automated deployment methodologies.
      * Experience with Linux/Unix administration and scripting.
      * Knowledge of cloud services and containerization is advantageous.

**Quality Assurance and Testing:**

* **Quality Assurance (QA) Tester**
  + **Description**: A QA Tester works to prevent software bugs and ensure the quality of software and IT systems.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, software engineering, or related field.
    - Experience in quality assurance and testing roles.
    - Familiarity with various testing techniques and strategies.
    - Understanding of programming and scripting.
* **Software Test Engineer**
  + **Description**: A Software Test Engineer is responsible for designing and implementing tests to ensure software quality through manual and automated testing.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, software engineering, or related field.
    - Strong analytical and problem-solving skills with attention to detail.
    - Familiarity with different types of testing (unit, integration, system, regression).
    - Experience with software testing tools and methodologies.
* **QA Automation Engineer**
  + **Description**: A QA Automation Engineer focuses on designing automated tests to validate the functionality of web and mobile applications.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, engineering, or a related field.
    - Experience with automated testing tools such as Selenium, TestComplete, or QTP.
    - Knowledge of programming languages like Python, Java, or C#.
    - Understanding of software QA methodologies, tools, and processes.
* **Performance Test Engineer**
  + **Description**: A Performance Test Engineer is responsible for conducting performance testing to ensure that applications run smoothly under their intended workload.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, engineering, or related field.
    - Experience with performance testing tools like LoadRunner, JMeter, or NeoLoad.
    - Understanding of performance bottlenecks, end-to-end performance, and web application performance.
    - Knowledge of network and application protocols (HTTP/HTTPS, TCP/IP).

**UI/UX and Design:**

* **UI/UX Designer**
  + **Description**: A UI/UX Designer focuses on designing user interfaces and improving user experiences on websites and applications.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in design, computer science, or relevant field.
    - Proficiency in graphic design software (Adobe Creative Suite, Sketch).
    - Understanding of HTML, CSS, JavaScript.
    - Strong portfolio showcasing design skills.

**Data Science and Analytics:**

* **Data Scientist**
  + **Description**: A Data Scientist analyzes and interprets complex digital data to assist in decision-making.
  + **Qualifications/Requirements**:
    - Master's degree in data science, statistics, computer science, or related field.
    - Proficiency in statistical languages (R, Python) and database languages (SQL).
    - Experience with machine learning and AI.
    - Strong analytical skills with the ability to collect, organize, analyze, and disseminate significant amounts of information.
* **Artificial Intelligence (AI) Engineer**
  + **Description**: An AI Engineer develops AI models and algorithms to enable machines to perform tasks requiring human intelligence.
  + **Qualifications/Requirements**:
    - Master’s degree or Ph.D. in computer science, AI, machine learning, or related field.
    - Proficiency in programming languages (Python, R).
    - Experience with machine learning frameworks (TensorFlow, PyTorch).
    - Strong mathematical and algorithmic background.
* **Data Engineer**
  + **Description**: A Data Engineer designs and constructs systems and infrastructure for collecting, storing, and analyzing large sets of data.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, IT, analytics, or related field.
    - Experience with big data tools: Hadoop, Spark, Kafka, etc.
    - Proficiency in SQL and programming languages (Python, Java).
    - Knowledge of data warehousing solutions.
* **Machine Learning Engineer**
  + **Description**: A Machine Learning Engineer designs and creates AI algorithms capable of learning and making predictions or decisions.
  + **Qualifications/Requirements**:
    - Advanced degree in computer science, mathematics, or a related field.
    - Proficiency in a variety of programming languages (Python, R, Java).
    - Extensive knowledge of machine learning frameworks (TensorFlow, Keras, PyTorch).
    - Strong statistical analysis and mathematical skills.
* **Data Analyst**
  + **Description**: Data Analysts process and interpret complex data to help companies make better and more timely decisions. Python is often used for data manipulation and analysis.
  + **Qualifications/Requirements**:
    - Bachelor's degree in data science, statistics, computer science, or related field.
    - Proficiency in Python, especially libraries like Pandas and NumPy.
    - Strong analytical skills with the ability to collect, organize, analyze, and disseminate significant amounts of information with attention to detail and accuracy.
    - Experience in data visualization tools like Matplotlib or Seaborn.
* **Machine Learning Engineer**
  + **Description**: This role involves creating machine learning models and retraining systems. Python is a popular choice for machine learning due to its extensive libraries and frameworks.
  + **Qualifications/Requirements**:
    - Master’s degree or Ph.D. in computer science, artificial intelligence, machine learning, or related field.
    - Proficiency in Python and machine learning frameworks like TensorFlow or PyTorch.
    - Strong understanding of algorithms and statistics.
    - Experience in data modeling and evaluation strategies.
* **AI-ops Engineer**
  + **Description: AIops (Artificial Intelligence for IT Operations) Engineers focus on automating and enhancing IT operations by leveraging big data, machine learning, and other AI techniques. They aim to simplify and accelerate IT operations processes, provide predictive insights, and enhance decision-making.**
  + **Qualifications/Requirements:**
    - **Bachelor’s or Master’s degree in Computer Science, IT, or a related field.**
    - **Strong background in AI and machine learning algorithms.**
    - **Experience with big data platforms and tools like Hadoop, Spark.**
    - **Proficiency in programming languages such as Python or Java.**
    - **Familiarity with IT operations and understanding of typical IT infrastructure.**
    - **Skills in data analytics and using AI for predictive analysis.**
    - **Experience with monitoring tools and incident management solutions.**
* **ML-ops Engineer**
  + **Description: MLOps (Machine Learning Operations) Engineers specialize in bridging the gap between machine learning models and production systems. They focus on the operationalization of machine learning models, ensuring that they can be deployed efficiently, monitored, and maintained in a production environment.**
  + **Qualifications/Requirements:**
    - **Bachelor’s or Master’s degree in Computer Science, Data Science, or related field.**
    - **Experience in deploying, monitoring, and maintaining machine learning models.**
    - **Strong knowledge of machine learning frameworks (e.g., TensorFlow, PyTorch).**
    - **Proficiency in programming languages commonly used in ML, like Python or R.**
    - **Understanding of DevOps principles and practices, including CI/CD pipelines.**
    - **Familiarity with containerization and orchestration tools (e.g., Docker, Kubernetes).**
    - **Experience with cloud platforms (AWS, GCP, Azure) and their ML services.**
    - **Knowledge of data engineering and pipeline design.**

**Other Disciplines:**

* **Bioinformatics Scientist**
  + **Description**: Bioinformatics Scientists use Python to analyze biological data, particularly in genomics and molecular biology.
  + **Qualifications/Requirements**:
    - Advanced degree in bioinformatics, computational biology, or a related field.
    - Strong programming skills in Python, particularly for data analysis and visualization.
    - Experience with biological data and computational tools for genomic analysis.
    - Proficiency in statistical analysis and machine learning.
* **Quantitative Analyst/Financial Engineer**
  + **Description**: Quantitative Analysts in finance use Python for quantitative analysis, financial modeling, and algorithmic trading.
  + **Qualifications/Requirements**:
    - Bachelor's or Master's degree in finance, mathematics, economics, or a related field.
    - Strong Python programming skills, especially in libraries like NumPy, Pandas, and Scikit-learn.
    - Knowledge of quantitative finance, statistical analysis, and financial market structures.
    - Experience in building financial models and trading algorithms.
* **Blockchain Developer**
  + **Description**: A Blockchain Developer specializes in developing and implementing blockchain solutions and technologies.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, information systems, or related field.
    - Proficiency in programming languages such as Solidity, Java, C++, or Python.
    - Understanding of blockchain technology and cryptography.
    - Experience with smart contracts and consensus algorithms.

**Security and System Admin:**

* **cybersecurity Analyst**
  + **Description**: A Cybersecurity Analyst protects an organization's computer systems and networks from security breaches and cyberattacks.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, cybersecurity, or related field.
    - Knowledge of various security protocols and systems.
    - Familiarity with firewalls, antivirus software, and intrusion detection systems.
    - Certification in cybersecurity (e.g., CISSP, CISM).
* **Database Administrator**
  + **Description**: A Database Administrator (DBA) is responsible for the performance, integrity, and security of a database.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science or a related field.
    - Proficiency in database management software like SQL Server, Oracle, or MySQL.
    - Strong understanding of database structures, theories, principles, and practices.
    - Experience with data backup, recovery, and security.
* **Systems Administrator**
  + **Description**: A Systems Administrator is responsible for the upkeep, configuration, and reliable operation of computer systems, particularly multi-user computers, such as servers.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, information technology, system administration, or a closely related field.
    - Experience with databases, networks (LAN, WAN), and patch management.
    - Familiarity with various operating systems and platforms.
    - Resourcefulness and problem-solving aptitude.
* **IT Support Specialist**
  + **Description**: An IT Support Specialist provides support to users and organizations with computer systems or information technology issues.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, information systems, or related field.
    - Strong understanding of computer systems, mobile devices, and other tech products.
    - Ability to diagnose and resolve basic technical issues.
    - Excellent communication skills.

### **Computer Networks and Networking**

* **Network Engineer**
  + **Description: Network Engineers are responsible for designing, implementing, and maintaining networks within an organization. They ensure the smooth operation of communication networks to provide maximum performance and availability for users.**
  + **Qualifications/Requirements:**
    - **Bachelor's degree in computer science, engineering, or related field.**
    - **Deep understanding of networking protocols (e.g., TCP/IP, HTTP).**
    - **Familiarity with network diagnostic, monitoring, and analysis tools.**
    - **Experience with firewalls, routers, switches, and network security measures.**
    - **Certifications such as CCNA, CCNP, or CCIE are often preferred.**
* **Network Administrator**
  + **Description: Network Administrators are tasked with maintaining computing environments by identifying network requirements, installing upgrades, and monitoring network performance.**
  + **Qualifications/Requirements:**
    - **Bachelor's degree in computer science, information technology, or a related field.**
    - **Experience in network administration and network installation.**
    - **Knowledge of network management and analysis tools.**
    - **Strong understanding of network infrastructure and network hardware.**
    - **Ability to implement, administer, and troubleshoot network infrastructure devices.**
* **Network Security Engineer**
  + **Description: Network Security Engineers focus on protecting an organization's systems and network infrastructure from cyber threats. They design, implement, and maintain security measures and infrastructure.**
  + **Qualifications/Requirements:**
    - **Bachelor’s degree in computer science, cybersecurity, or related field.**
    - **Experience with network security and networking technologies and with system, security, and network monitoring tools.**
    - **Familiarity with web-related technologies (Web applications, Web Services, Service-Oriented Architectures) and network/web-related protocols.**
    - **Relevant security certifications (e.g., CISSP, CISM, CEH, CompTIA Security+).**
* **Wireless Communications Engineer**
  + **Description: Specializes in the design, implementation, and maintenance of wireless communication systems, including Wi-Fi, cellular, and satellite communications.**
  + **Qualifications/Requirements:**
    - **Degree in electrical engineering, telecommunications, or a related field.**
    - **Deep knowledge of wireless communication principles and standards (e.g., LTE, 5G).**
    - **Experience with RF planning, network design, and wireless communication systems.**
    - **Familiarity with signal processing techniques and antenna design.**
* **Network Architect**
  + **Description: Network Architects design and build data communication networks, such as local area networks (LANs), wide area networks (WANs), and intranets. They plan and design the network infrastructure and architecture.**
  + **Qualifications/Requirements:**
    - **Advanced degree in computer science, engineering, or related field.**
    - **Extensive experience in network design and implementation.**
    - **Deep knowledge of networking technologies, including routers, switches, firewalls, and load balancers.**
    - **Strong understanding of network protocols and standards.**
    - **Experience with network security and management.**

**Business and Project Management**

* **Business Analyst**
  + **Description**: A Business Analyst helps guide businesses in improving processes, products, services, and software through data analysis.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in business or related field.
    - Experience in analyzing data to draw business-relevant conclusions.
    - In-depth knowledge of business analysis tools and methodologies.
    - Strong written and verbal communication skills.
* **IT Project Manager**
  + **Description**: An IT Project Manager is responsible for planning, executing, and overseeing projects within the information technology sector.
  + **Qualifications/Requirements**:
    - Bachelor's degree in computer science, information technology, or related field.
    - Proven experience in project management and IT project execution.
    - Strong understanding of project management methodologies (like Agile and Scrum).
    - Excellent communication, leadership, and organizational skills.
* **Technical Writer**
  + **Description**: A Technical Writer prepares instruction manuals, journal articles, and other supporting documents to communicate complex and technical information more easily.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in English, Communications, or a related field.
    - Strong writing and communication skills.
    - Ability to understand and explain complex technical information.
    - Experience in technical writing or a related field.

**IOT & Embedded System**

* **IoT Developer**
  + **Description**: An IoT (Internet of Things) Developer develops applications and solutions that connect devices to the internet or to each other.
  + **Qualifications/Requirements**:
    - Bachelor’s degree in computer science, information technology, electronics, or related field.
    - Experience with IoT protocols (MQTT, CoAP, AMQP).
    - Proficiency in programming languages suitable for embedded systems (C, C++, Python).
    - Understanding of network protocols and experience with cloud platforms.
* **Embedded Systems Engineer**
  + **Description**: An Embedded Systems Engineer specializes in developing and optimizing embedded systems, which are dedicated computing systems designed for specific functions within larger systems.
  + **Qualifications/Requirements**:
    - Bachelor’s or Master’s degree in Electrical Engineering, Computer Science, or a related field.
    - Proficiency in embedded software development languages, such as C, C++, or Assembly.
    - Understanding of microcontrollers, processors, and real-time operating systems.
    - Experience with hardware design and testing of embedded systems.
* **Embedded Software Developer**
  + **Description**: An Embedded Software Developer focuses on writing software to control various devices and machines that are not typically thought of as computers.
  + **Qualifications/Requirements**:
    - Bachelor’s or Master’s degree in computer science, electronics engineering, or related field.
    - Strong programming skills in C/C++ for embedded systems.
    - Experience with embedded systems design, debug, and testing.
    - Knowledge of real-time operating systems (RTOS) and hardware-software integration.