Tips From Hiring Leaders
What makes a great Developer?

I
AM
IBM

IBM

Q **What's the ideal background for someone interested in entry-level Developer roles at IBM?**

A   We've found that people with the following degrees and/or relevant experience make the most successful Developers:

- Computer Science
- Engineering
- Electrical Engineering/Firmware Design
- Cloud Architecture
- UX/User Design
- Development and DevOps Tools

Dana (She/Her)
Dubai, UAE

IBM®

I
AM
IBM

Q **What entry level roles does IBM offer in Software Development?**

A We offer four distinct roles with several specialties:

- Software Developer
  - Automation Development and Testing
  - Backend, Server Systems and Cloud based
  - Development
  - Client facing Assistance and Solution
  - Development
  - Firmware Development
  - Front End Development
  - Full Stack Development
- Cognitive Software Developer
- Hardware Developer
- DevOps Developer
- Site Reliability Engineer

Victor
Sao Paulo, Brazil

Q How can I be sure which Software Developer specialty is right for me?

A Learn more about each to find the specialty that fits with your skills and interests.

Backend, Server Systems, and Cloud based Development

Do you think the most beautiful part of a car is its engine? Do you have a passion for clean coding and elegant, reusable architecture thatprovides a solid foundation for others to build upon? Do you care about how services you've created are hosted in the cloud? Do you understand that downtime results in lost dollars? If so, we may have a great opportunity for you! Learn more

Firmware Development

Do your interests fall somewhere between software and hardware? Is your passion low level coding, embedded software solutions, or hardware control systems? Are you excited by the Internet of Things and fascinated with working at the intersection of code and machines? Then firmware development might be the place for you! Learn more

Automation Development and Testing

Does it bother you when you see software applications behaving badly? Do you ever find yourself wondering, "Why does it ask me that?" or thinking, "Didn't I just enter that information?" Is "good enough" for others sometimes not good enough for you? If you pay close attention to the details, you can use that keen awareness to change things for the better! You can do this through Automation Development and Testing (often called Quality Engineering). Learn more

Front End Development

Do you care about elegant user interfaces that are both beautiful an intuitive? Do you find yourself critiquing an application's UI and imagining how it could be better? Do you thrive on collaboration, working side by side with people of all backgrounds and disciplines to create a signature customer experience? If so, Front End Development might be your calling. Learn more

Client facing Assistance and Solution Development

Do you want to see firsthand how your work benefits the world? If you specialize in Client Facing Assistance and Solution Development, you not only get to develop cool things, but you get a first hand look at how our clients are using them. You'll be on the front lines working directly with our clients to deliver cognitive solutions to challenging problems. Learn more

Full Stack Development

Do you have a genuine curiosity about every layer of an application? Do you care equally about the aesthetics and usability as you do about the logic and data structures underneath? Do you want a chance to work across the architecture of a product, building both front end and backend? Then Full Stack Development might just be your dream! Learn more

IBM.

Q What types of skills do you look for?

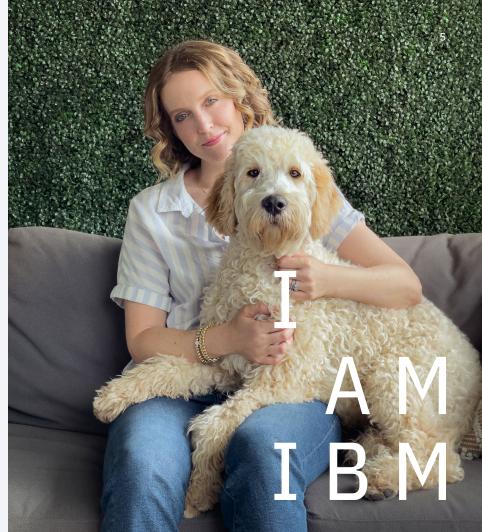A We look for proven experience/evidence in one or more of the following:

- Advanced coding
- Able to navigate team dynamics
- Thinking before you code

Q What qualifications are essential to becoming a good Developer?

A A degree or relevant experience in one of the following:

- Computer Science/Engineering
- Electrical Engineering/Firmware Design
- Cloud Architecture
- UX/User Design
- Development and DevOps Tools

Jesse
Austin, US

I
AM
IBM

Q What attributes or personality traits make a good Developer?

A Here are a few that we consistently find in our best Developers:

- Loves technology and software
- Agile thinker in a fast-paced environment
- Finds solutions to challenges
- A dreamer and a thinker

Bianca
Sao Paulo, Brazil

IBM

I AM IBM

Q What's the mindset of a successful Developer at IBM?

A While there's no right answer, we've found people with the following ethos or way of thinking often do well:

- I want to develop cutting edge tech, using Agile methodologies and Design Thinking practices.

- Writing high quality code in a fast paced environment is what I live for.

ShuDon
Raleigh, US

IBM

I AM IBM

Q What can I do to improve my candidacy with IBM and prepare for my future as a Developer?

A Here are a few recommendations:

- Find ways to demonstrate your coding skills and get on GitHub.

- Participate in a hackathon.

- Join the Call for Code building solutions for disaster preparedness.

- Build programming language skills and be fluent in 2 min.

- Learn about Watson AI & Cloud APIs and other resources.

- Visit IBM's Developer Community for free SW, courses, training and networking groups.

- Be familiar with Design Thinking and Agile principals.

Emanuele (He/Him)
Bratislava, Slovakia

IBM

Q Where can I go to learn more about the entry level and intern Developer roles at IBM?

A A. You have several options:

1. Go to IBM's Career Website to learn more about our entry level and intern Developer roles.

2. Visit ibm.com/employment/developer/ for details about the Developer profession at IBM, including Developer Jumpstart for entry level Developers.

3. Join our Talent Network and sign up to receive job alerts the minute Developer roles become available.

4. Come out and meet us. Check with your Career Services for current 2021-22 calendar of events.

Chiharu
Tokyo, Japan

IBM

I AM IBM

Thank you for your interest
in Developer roles at IBM.

Visit:

ibm.com/jobs/us/entrylevel

IBM

I
A M
I B M

Backend, Server Systems, and Cloud-based Development

Do you think the most beautiful part of a car is its engine? Do you have a passion for clean coding and elegant, reusable architecture that provides a solid foundation for others to build upon? Do you care about how services you've created arehosted in the cloud? Do you understand that downtime results in lost dollars?

If so, we may have a great opportunity for you! Backend, or Server Systems Engineering typically involves working on the guts of a system that might include servers, applications, and databases. Many things depend upon this foundation, so we must make sure it's not only correct, but also scalable, efficient, and fast. And as much as possible, we need Application Programming Interfaces (APIs) to allow other developers to easily use the technology. Systems Engineering can also involve working with the Linux kernel, scheduler, memory management system, device drivers, and hardware architectures. Cloud based development is very similar, but with a singular focus on internet technologies, platforms, and frameworks. Consumers expect cloud services to have very high uptime, so both services and platforms need to be architected for resiliency and redundancy. It goes without saying that it all needs to be secure and easy to use.
In these areas, you'll interact constantly with other software developers, pairing to design and code critical components.
You'll get a broad exposure to IBM's overall Cloud strategy. You may work on the underlying platforms and frameworks, or you might partner with other software developers to design and develop services to be hosted in IBM's cloud.
You'll collaborate with offering management, architects and performance engineers to understand user and system requirements, and then apply your skills in various programming languages to enable powerful user experiences at a scale you've never worked on before. Your work may even deploy into IBM's cloud and be available to IBM customers all around the world!

Automation Development and Testing

Does it bother you when you see software applications behaving badly? Do you ever find yourself wondering, "Why does it ask me that?" or thinking, "Didn't I just enter that information?" Is "good enough" for others sometimes not good enough for you? If you pay close attention to the details, you can use that keen awareness to change things for the better! You can do this through Automation Development and Testing (often called Quality Engineering).

In this area, you'll get to work with cutting edge cognitive computing technology, before it's available to the public. Not only that, but you'll help to make sure that it's cool, fast, and ready for anything people might send its way. You'll work as a key member of project development teams, interacting with the performance team, other software developers, architects, information developers, and network engineers. As part of this focused team, you will apply your skills in Java, Ruby, Python, and other programming languages to write programs that test and stress cloud services to ensure they can stand up to the abuse they get from customers. You'll use your passion for correctness to verify that the software behaves for the users who will someday need to use it to get things done. Because of you, software will be easy and fun to use. You'll design tests to ensure the fun, cool new stuff that your team has built this year doesn't interfere with what the team built last year. Because of your tenacity and attention to detail, customers will be confident their software will keep working the way it should.

Return to all Software Developer Specialties →

Client-facing Assistance and Solution Development

Do you want to see firsthand how your work benefits the world? If you specialize in Client-Facing Assistance and Solution Development, you not only get to develop cool things, but you get a first-hand look at how our clients are using them. You'll be on the front-lines working directly with our clients to deliver cognitive solutions to challenging problems.

From project planning and solution design to software implementation and development, you'll have the opportunity to work in every part of the project lifecycle. And you'll fast track your experience with a wide variety of products. Whether in a lab or at a customer site, you'll capitalize on your verbal and written communication skills while letting your developer skills shine. You'll get exposure to a wide range of professionals from fellow developers to client CTOs. Working directly with clients, you may get a chance to travel and discover new places. You'll wear many hats including architect, developer, project manager, and support engineer from time to time. The clients will look to you as a product expert and liaison between them and our other development and support teams. From a technical standpoint, you have a chance to work with our entire portfolio of offerings. Sometimes this means installing and configuring software, and other times this means developing customized solutions from the ground up using our cognitive APIs. Our clients use every type of technology and programming language imaginable. You'll have a chance to work with anything from web development frameworks, to Java, to our natural language processing libraries. Whatever your interest, there is something for you in this challenging area. If you are a true problem solver, love to dig to find the answer to tough technical issues, and have a knack for handling critical situations and pulling people together to collaborate and solve the unsolvable, this could be the space where you make the greatest impact.

Firmware Development

Do your interests fall somewhere between software and hardware? Is your passion low-level coding, embedded software solutions, or hardware control systems? Are you excited by the Internet of Things and fascinated with working at the intersection of code and machines? Then firmware development might be the place for you!

In this area you'll design, develop and test software that directly manages and controls the hardware. Firmware may exist anywhere in a computing system from the central computing complex to management consoles, power supplies, and I/O adapters. You'll hone your skills in several languages, including C, C++, Java, Python and others. As an energetic, motivated individual member of our team, you'll have the opportunity to work through different phases of software and firmware development and various stages of the product lifecycle including design, implementation, simulation, bringup, verification and release. You'll collaborate in a global team with industry experts to invent the future for our clients!

Front End Development

Do you care about elegant user interfaces that are both beautiful an intuitive? Do you find yourself critiquing an application's UI and imagining how it could be better? Do you thrive on collaboration, working side by side with people of all backgrounds and disciplines to create a signature customer experience? If so, Front End Development might be your calling.

You'll use your strong verbal and written communication skills to understand requirements, design, code and test high-quality web and mobile apps containing rich content and user interface components. Working closely with user experience designers to take wireframes and mockups from conception to implementation, you'll identify specific issues in the user interface, recommending and implementing solutions that influence and improve the design. Regardless of the product or project, you'll work hands-on in modern frameworks such as Backbone.js, AngularJS, React, Ember.js, Bootstrap, Node.js, and JQuery, while expanding your skills in UI development technologies such as HTML, CSS, Sass and JSON. And above all, you'll employ IBM's Design Thinking to create products that provide a delightful user experience along with high performance, security, quality, and stability.

Full Stack Development

Do you have a genuine curiosity about every layer of an application? Do you care equally about the aesthetics and usability as you do about the logic and data structures underneath? Do you want a chance to work across the architecture of a product, building both front end and backend? Then Full Stack Development might just be your dream!

You'll leverage your knowledge of application and web development in HTML and CSS, growing your programming skills in languages like Javascript, Ruby and Python, along with modern frameworks such as Node.js and Angular.js. You'll also work in Java to implement server-side or application logic, develop databases and RESTful interfaces, and design architectures that are scalable, reliable and fast. You'll partner with offering managers, stakeholders, front end developers and backend developers, employing IBM's Design Thinking methodology to elicit requirements and build applications from start to finish, defining and constructing every part of the product as you become a jack-of-all-trades. Your versatility and flexibility in skills will open numerous opportunities to work in a variety of teams and industries.