

# Tech Careers @ IBM

## Software Development Specialties

Software Engineers at IBM can work in a variety of specialty areas. All of these areas require the same rigorous technical skills, but each allows you to use those skills in a slightly different way.

Take a look at these differences and think about the type of work you'd like to try:

### Backend or Server Systems Programming

Do you think the most beautiful part of a car is its engine? Does the ticking of a well-functioning mechanical watch give you joy? Do you have a passion for clean coding and elegant, reusable architecture that provides a solid foundation for others to build upon? If so, Backend Engineering may be 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 have to 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.

In this area, you'll interact constantly with other software developers, pairing to design and code critical components. 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!

### Cloud-based Development

Do you care about how services you've created are hosted in the cloud? Do you understand that downtime results in lost dollars? Are you passionate about creating a signature end-user experience for our developer ecosystem? Consider the area of cloud development.

Cloud-based development is similar to the backend programming, 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.



Cloud-based Development will give you 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 work with offering managers to understand the needs of our developer communities, and you'll collaborate with DevOps to implement service models that ensure our ability to continuously deliver new features without sacrificing high availability.

## Automation 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 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.

## Client-Facing Solutions Development

Do you want to actually see how your work benefits the world? If you specialize in Client-Facing 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.

If you're a technical person who is energized by people and can't stand the thought of being stuck in some lab - this could be the perfect way to let your developer skills shine. You'll get exposure to a wide range of professionals from fellow developers to client CTOs. Since we work 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.

## Client-Facing Technical Support

Technical support engineering is a quite unique area to utilize your software engineering skills. In the fact that it helps you to develop a mix of skills, each of which are equally important to be effective. In this area, 50% of the job is utilizing excellent written and verbal communication skills. You are representing IBM in a customer-facing role, so the impression you give the customer is a direct reflection of IBM.

Having the ability to approach the situation with patience and composure, to effectively diffuse frustrated customers in difficult situations, and the ability to extract the information needed to troubleshoot and resolve their issue is extremely valuable to someone who specializes in support engineering.

Support is definitely the vehicle for you if you are looking to fast track your experience with a product. You are considered to be the expert of the product you are supporting. Every day is a different issue, and you have the opportunity to collaborate with many different groups, development, sales, presales, professional services and product management professionals.

So if you are a true problem solver, love to dig to find the answer to tough technical issues, and have a knack to diffuse critical situations and pull people together to collaborate and solve the unsolvable, then this could be the space where you make the greatest impact.