**About IBM**

IBM is a 110-year-old global technology company which is present in India since 1992. IBM is helping the world’s biggest businesses usher in their next digital chapter through Artificial Intelligence, Cloud, Quantum, Blockchain, Systems and Services. IBM is a leading innovator with 28 consecutive years of patent leadership. The diversity and breadth of the entire IBM portfolio of research, systems, software, services, and solutions uniquely distinguishes IBM India from other companies in the industry.

**About the Business Unit: India Systems Development Lab (ISDL)**

IBM Systems division builds Servers, Storage and Systems Software which are the building blocks for next-generation IT infrastructure of enterprise customers and data centers. IBM Servers provide best-in-class reliability, scalability, performance, and end-to-end security to handle mission-critical workloads and provide seamless extension to hybrid multicloud environments.

India Systems Development Lab (ISDL) is part of word-wide IBM Systems division. Established in 1996, the ISDL Lab is headquartered in Bengaluru, with presence in Pune and Hyderabad as well. ISDL teams work across the IBM Systems stack including Processor development, Firmware, Operating Systems, Systems Software, Storage Software, Cloud Software, Performance Engineering, System Test etc. The ISDL teams also ushered in new development models such as Agile, Design Thinking and DevOps**.**

|  |
| --- |
| **Your Role and Responsibilities:** |
|  |

|  |
| --- |
| As a Software Engineer at IBM India Systems Development Lab (IBM ISDL), you will get an opportunity to work on all the phases of product development (Design/Development, Test and Support) across core Systems technologies including Operating Systems, Firmware, Systems Software, Storage Software & Cloud Software.  As a Software developer at ISDL:   * You will be focused on development of IBM Systems products interfacing with development & product management teams and end users, cutting across Geos. * You would analyze product requirements, determine the best course of design, implement/code the solution and test across the entire product development life cycle. One could also work on Validation and Support of IBM Systems products. * You get to work with a vibrant, culture driven and technically accomplished teams working to create world-class products and deployment environments, delivering an industry leading user experience for our customers * You will be valued for your contributions in a growing organization with broader opportunities.   At ISDL, work is more than a job - it's a calling: To build. To design. To code. To invent. To collaborate. To think along with clients. To make new products/markets. Not just to do something better, but to attempt things you've never thought was possible. Are you ready to lead in this new era of technology and solve some of the most challenging problems in Systems Software technologies? If so, let’s talk. |

**Regular Job opportunities across ISDL teams are in the following areas.**

**Systems and Cloud Software Engineer:**

As a Software Engineer with IBM Systems and Cloud Software teams, you will get the opportunity to get involved in all the phases of software development and work with technically accomplished teams. The responsibilities comprise of design new enhancements, coding (including test automation), problem determination and bug fixing, performance analysis, and solving client problems. You could also work on IBM Compute and Storage Systems including Virtualisation, I/O and Reliability Availability & Serviceability thereby, enabling the creation of a seamless software user experience across the stack delivering to IBM’s Hybrid Cloud and AI clients. As an engineer you will be responsible for enhancing and maintaining the key components of the Software stack, Platform enablement and an opportunity to work on closed and Open source development communities.

**Required Technical Expertise:**

* Knowledge of Operating Systems, OpenStack, Kubernetes, Container technologies, Cloud concepts, Security, Virtualization Management, REST API, DevOps (Continuous Integration) and Microservice Architecture.
* Strong programming skills in C, C++, Go Lang, Python, Ansible, Shell Scripting.
* Comfortable in working with Github and leveraging Open source tools.

**AI Software Engineer:**

As a Software Engineer with IBM AI on Z Solutions teams, you will get the opportunity to get involved in delivering best-in class Enterprise AI Solutions on IBM Z and support IBM Customers while adopting AI technologies / Solutions into their businesses by building ethical, secure, trustworthy and sustainable AI solutions on IBM Z.

You will be part of end to end solutions working along with technically accomplished teams. You will be working as a Full stack developer starting from understanding client challenges to providing solutions using AI.

**Required Technical Expertise:**

* Knowledge of AI/ML/DL, Jupyter Notebooks, Linux Systems, Kubernetes, Container technologies, REST API, UI skills,
* Strong programming skills like – C, C++, R, Python, Go Lang and well versed with Linux platform.
* Strong understanding of Data Science, modern tools and techniques to derive meaningful insights
* Understanding of Machine learning (ML) frameworks like scikit- learn, XGBoost etc.
* Understanding of Deep Learning (DL) Frameworks like Tensorflow, PyTorch
* Understanding of Deep Learning Compilers (DLC)
* Natural Language Processing (NLP) skills
* Understanding of different CPU architectures (little endian, big endian).
* Familiar with open source databases PostGreSQL, MongoDB, CouchDB, CockroachDB, Redis, data sources, connectors, data preparations, data flows, Integrate, cleanse and shape data.

**IBM Spectrum Fusion SW Engineer:**

IBM Spectrum Fusion container-native storage solution for OpenShift is designed for enterprise customers who need global hybrid cloud data access. As a Software Engineer with IBM Storage Spectrum Fusion team, you will work with the Dev/Test team to develop and support features for Spectrum Fusion product roadmap

**Preferred Technical Expertise:**

* Practical working experience with Java, Python, GoLang, ReactJS, Groovy
* Experience in using the cloud infrastructure (server, network, storage) for product/app development.
* Working with Cloud: (any of) IBM, AWS, Google, Azure
* Experience with cloud computing technologies such as Red Hat OpenShift, Microservices Architecture, Kubernetes/Docker Deployment.
* Experience using version control systems like Git, Rational Team Concert
* Experience in Automated & Continuous Delivery -- ability to write /define unit tests, automated build, test, run

**Linux Developer:**

|  |
| --- |
| As a Linux developer, you would be involved in design and development of advanced features in the Linux OS for the next generation server platforms from IBM by collaboration with the Linux community. You collaborate with teams across the hardware, firmware, and upstream Linux kernel community to deliver these capabilities.  **Preferred Technical Expertise**   * Excellent knowledge of the C programming language * Knowledge of Linux Kernel internals and implementation principles. In-depth understanding of operating systems concepts, data structures, processor architecture, and virtualization * Experience with working on open-source software using tools such git and associated community participation processes.   **Hardware Management Console (HMC) / Novalink Software Developer:**  As a Software Developer in HMC / Novalink team, you will work on design, development, and test of the Management Console for IBM Power Servers. You will be involved in user centric Graphical User Interface development and Backend for server and virtualization management solution development in Agile environment.  **Preferred Technical Expertise**   * Strong Programming skills in in Core Java 8, C/C++ * Web development skills in JavaScript (Frameworks such as Angular.js, React.js etc),, HTML, CSS and related technologies * Experience in developing rich HTML applications * Web UI Frameworks: Vaadin, React JS and UI styling libraries like Bootstrap/Material * Knowledge of J2EE, JSP, RESTful web services and GraphQL API |
|  |

**AIX Developer:**

AIX is a proprietary Unix operating system which runs on IBM Power Servers. It’s a secure, scalable, and robust open standards-based UNIX operating system which is designed to meet the needs of Enterprises class infrastructure. As an AIX developer, you would be involved in development, test or support of AIX OS features development or open source software porting/development for AIX OS

**Preferred Technical Expertise**

* Strong Expertise in Systems Programming Skills (C, C++)
* Strong knowledge of operating systems concepts, data structures, algorithms
* Strong knowledge of Unix/Linux internals (Signals, IPC, Shared Memory,..etc)
* Expertise in developing/handling multi-threaded Applications.
* Good knowledge in any of the following areas
  + - User Space Applications
    - File Systems, Volume Management
    - Device Drivers
    - Unix Networking,
    - Security
    - Container Technologies
    - Linkers/Loaders
    - Virtualization
    - High Availability & clustering products
* Strong debugging and Problem-Solving skills

**Performance engineer:**

As a performance Engineer , you will get an opportunity to conduct experiments and analysis to identify performance aspects for operating systems and Enterprise Servers. where you will be responsible for advancing the product roadmap by using your expertise in Linux operating system, building kernel , applying patches, performance characterization, optimization and hardware architecture to analyse performance of software/hardware combinations. You will be involved in conducting experiments and analysis to identify performance challenges and uncover optimization opportunities for IBM Power virtualization and cloud management software built on Open stack. The areas of work will be on characterization, analysis and fine-tune application software to help deliver optimal performance on IBM Power.

**Preferred Technical Expertise**

* Experience in C/C++ programming
* Knowledge of Hypervisor, Virtualization concepts
* Good understanding of system HW , Operating System , Systems Architecture
* Strong skills in scripting
* Good problem solving, strong analytical and logical reasoning skills
* Familiar with server performance management and capacity planning
* Familiar with performance diagnostic methods and techniques

**Firmware engineer:**

As a Firmware developer you will be responsible for designing and developing components and features independently in IBM India Systems Development Lab. ISDL works on end-to-end design, development across Power, Z and Storage portfolio. You would be a part of WW Firmware development organization and would be involved in  designing & developing cutting edge features on the open source OpenBMC stack (<https://github.com/openbmc/>) and developing the open source embedded firmware code for bringing up the next generation enterprise Power, Z and LinuxONE Servers. You will get an opportunity work alongside with some of the best minds in the industry, forum and communities in the process of contributing to the portfolio.

(*architects from google/meta/nvidia etc* )

**Preferred Technical Expertise**

* Strong System Architecture knowledge
* Hands on programming skills with C, C++ , C on Linux Distros.
* Experience/exposure in Firmware/Embedded software design & development,
* Strong knowledge of Linux OS and Open Source development
* Experience with Open Source tools & scripting languages: Git, Gerrit, Jenkins, perl/python

**Other skills (Common for all the positions):**

1. Strong Communication, analytical, interpersonal & problem solving skills
2. Ability to deliver on agreed goals and the ability to coordinate activities in the team/collaborate with others to deliver on the team vision.
3. Ability to work effectively in a global team environment