

November, 2023



Udaan

A Hope To Rise



Sunbeam
School, Sarnath

Dream Destination

Network Architect

Top Indian Colleges

- Indian Institutes of Technology (IITs)
- National Institutes of Technology (NITs)
- Delhi Technological University (DTU)
- International Institute of Information Technology (IIIT)

Eligibility (common for all above Institutes): Admission to undergraduate programs (B.Tech) generally requires passing the Joint Entrance Examination (JEE) Main and JEE Advanced exams. The specific eligibility criteria may vary from one IIIT to another.

- **Birla Institute of Technology and Science (BITS):**
Eligibility: Admissions to BITS Pilani, Goa, and Hyderabad campuses are through the BITSAT (BITS Admission Test) examination.
- **Carnegie Mellon University**
Eligibility: Undergraduate admission requirements include a recognized high school diploma or equivalent, and in some cases, a language proficiency test like TOEFL or IELTS for international students.

Top Foreign Colleges

- Stanford University
- ETH Zurich, Switzerland
- University of Cambridge, UK
- University of California, Berkeley
- National University of Singapore (NUS)
- Massachusetts Institute of Technology (MIT)

Eligibility (common for all above Institutes): Undergraduate admission requirements include a recognized high school diploma or equivalent, A-levels and in some cases, a language proficiency test like TOEFL or IELTS for international students.

College & University Updates

The **National Institutes of Technology (NITs)** are public technical schools owned by the Indian government. The Ministry of Education runs them. The National Institutes of Technology, Science Education and Research Act of 2007 tell them what they can do, their responsibilities, and how they are run. It also says that they are institutions of national significance. In the law, there are thirty-one NITs. Each NIT is independent, but they all work together through a group called the Council of NITSER, which is in charge of their management. The Government of India supports all NITs.



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Career Spotlight

Becoming a **network architect** typically requires a blend of education, experience, and specific skills. Here's an overview of the general eligibility and qualification criteria:

Educational Preparation:

High School Preparation: Focus on math and science courses, as these are fundamental to understanding computer science and programming. Develop problem-solving skills and logical thinking.

Bachelor's Degree: Pursue a bachelor's degree in computer science, software engineering, or a related field. Some other fields, like mathematics or electrical engineering, can also be suitable for entering the software engineering profession.

Select a reputable university or college with a strong computer science program.

Gain proficiency in programming languages, data structures, algorithms, and software development principles.

Consider pursuing internships or co-op programs to gain practical experience.

Online Courses and Self-Study: Complement your formal education with online courses and tutorials. Websites like Coursera, edX, Udacity, and Codecademy offer a wide range of programming and computer science courses. Practice coding regularly and work on personal projects to build a portfolio of work.

Gain Practical Experience:

Internships and Job Experience: Secure internships and entry-level positions to gain practical experience. Many companies hire junior software engineers and offer on-the-job training.

Continuous Learning: Stay up-to-date with evolving technologies and programming languages by continuing to learn throughout your career. Software engineering is a rapidly changing field.

Professional Development:

Certifications (Optional): Cisco Certified Network Professional (CCNP), Cisco Certified Internetwork Expert (CCIE), CompTIA Network+, and others can boost your credentials.

Skills:

Strong knowledge of networking protocols, hardware, and software, along with problem-solving, analytical thinking, and communication skills, are essential. Knowledge of security protocols and practices is increasingly important.

Continuous Learning:

Master's Degree (Optional): Consider pursuing a master's degree in computer science or a related field if you want to specialize further or aim for higher-level positions in software engineering. This is optional, and many software engineers thrive with only a bachelor's degree.

Stay updated with advancements in Software engineering through continuing education, workshops, and conferences. Many engineers pursue masters or doctoral degrees to further specialize or advance their careers.



Build a Portfolio and Network:

Maintain a portfolio of your engineering projects, achievements, and certifications to showcase to potential employers. Networking within the engineering community can also help you find job opportunities and career growth. Attend technology meetups, conferences, and join online communities to connect with other software engineers and stay updated on industry trends.

Career Path:

Entry-Level: Starting positions might include roles like network technician or junior network engineer, involving hands-on tasks, troubleshooting, and basic configuration.

Mid-Level: Progressing to roles like network engineer or network administrator, involving more complex configurations, maintenance, and possibly some design responsibilities.

Senior Level: Advancing to roles such as network architect or senior network engineer, where the focus is on high-level design, strategic planning, and overseeing network infrastructure on a larger scale.

Industry and Job Outlook:

Network architects can work in various industries like telecommunications, finance, healthcare, and IT services. With the growing reliance on technology, the demand for skilled network architects remains high.

As businesses expand their digital footprint and rely more on cloud-based services, the need for robust and secure networks continues to increase, making this field promising for those with the right skills and expertise.

Salary: Salaries can vary based on experience, location, and specific roles within network architecture. Entry-level positions might start around \$60,000 to \$80,000 annually, while experienced network architects can earn well over \$100,000 per year.

Being Market ready

Developing **Collaborative skills** is essential for success in a profession, as it often involves working with diverse teams and stakeholders across different cultures and locations. Here are some steps to help a person develop collaborative skills for any profession:



Effective Communication: Improve both verbal and written communication skills. Clear and concise communication is vital to convey ideas and information effectively to diverse teams.

Active Listening: Practice active listening by paying full attention to what others are saying. This will help in understanding different perspectives and building stronger relationships.

Empathy: Develop empathy to understand the feelings and viewpoints of colleagues from diverse backgrounds. Empathy can lead to better cooperation and teamwork.

Teamwork: Develop a strong sense of teamwork. Encourage and support team members, and be open to their ideas and contributions.

Networking: Build a professional network within and outside the organization. Networking can help in creating opportunities for collaboration and developing a better understanding of the industry.

Adaptability: Be flexible and adaptable to changes and different work environments. MNC professionals often work across different time zones and cultures, so adaptability is key.

Project Management Skills: Be flexible and adaptable to changes and different work environments. MNC professionals often work across different time zones and cultures, so adaptability is key.

Technology Proficiency:

Stay updated with the latest collaboration and communication tools, such as video conferencing, project management software, and instant messaging platforms. Proficiency in these tools is crucial for remote collaboration.

Cross-Functional Knowledge:

Gain a broad understanding of various business functions and how they relate to each other. This knowledge can help in better collaboration with colleagues from different departments.

Conflict Resolution Training:

Consider taking courses or workshops on conflict resolution and negotiation. These skills are particularly valuable when working with people who may have different opinions or goals.

Language Skills: If you work in a global organization, consider learning a second language. Being multilingual can greatly enhance your ability to collaborate with colleagues from different parts of the world.

Mentorship and Coaching: Seek out mentors or coaches who can provide guidance on developing collaborative skills. Learning from experienced professionals can accelerate your growth.

Feedback and Self-Reflection: Regularly seek feedback from colleagues and supervisors to assess your collaborative skills. Reflect on your experiences and continuously work on improving.

Developing collaborative skills is an ongoing process. It's important to consistently practice and refine these skills to excel in an MNC profession, where collaboration and effective communication are essential for success.

Success Stories

Vijay Pandurang Bhatkar PB, PS is an Indian computer scientist, IT leader and educationalist. He is best known as the architect of India's national initiative in supercomputing where he led the development of Param supercomputers. He is a Padma Shri, Padma Bhushan, and Maharashtra Bhushan awardee. Indian computer magazine Dataquest placed him among the pioneers of India's IT industry. He was the founder and executive director of Centre for Development of Advanced Computing (C-DAC) and is currently working on developing exascale supercomputing for India.



Born	11 October 1946 (age 77) Akola district, Maharashtra, India
Alma mater	VNIT Nagpur, IIT Delhi M S University, Baroda
Designation	Chairman of Vijnana Bharati
Known for	Architect of PARAM series of Supercomputers Founder of C-DAC



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Crossing The Bridge

Supporting your child's career development and education is crucial for their future success. Here are some resources and tips for parents to help them navigate this journey:

Set Realistic Goals:

SMART Goals: Help your child set Specific, Measurable, Achievable, Relevant, and Time-bound goals for their education and career.

Short-term and Long-term Planning: Assist them in creating both short-term and long-term plans to achieve their goals.

Knowledgepedia

Websites:

Indeed - A popular job search engine with a robust resource section.

LinkedIn Learning (formerly Lynda.com) - Offers a wide range of courses on various career skills.

Coursera - Provides access to online courses from top universities and organizations.

Glassdoor - A job search and company review website with valuable insights into company cultures and salaries.

edX - Offers free and paid online courses on a variety of subjects.

Career Builder - Offers job listings and resources for job seekers.

Books:

"The Art of Network Architecture" by Russ White
"Architecture of Network Systems" by Dimitrios Nikolaou Serpanos

"The Careers Handbook: The Ultimate Guide to Planning Your Future" by DK

Podcasts:

How to Deal with Difficult People, Jay Johnson on TEDx

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