

# Future Prospect in Computer Science

Web Developers	Software Developers
Hardware Engineers	Software Compliance
Software Testing	Database Analysts (SQL)
System Analysts or System Engineers	Security Analysts
Business System Analyst	CRM System Analysts
CRM Technical Developers	Data Warehouse Developer / Analyst
Database Developer	Data Modeler
Project Manager	Data Security Analyst / Information Security Analyst
Applications Developer	Information Technology Manager
Business Intelligence Analyst	Mobile Applications Developer
Information Technology Auditor	Quality Assurance Associate / Analyst
Database Manager	UX Designer
Manager, Software Quality Assurance (QA) / Testing	Data Architect
Manager, Data Warehouse	

## Scope of Digital Electronics

- Internet of thing
- Telecommunication
- Electronics system design and manifesting
- Cloud computing
- Body area network

**'DIGITAL INDIA' by 2020:**

**making India capable of generating almost each electronic product in India itself. Thereby, making a zero import on electronic product.**

## Scope of Data structure and c language

- OS Kernel
- Device-Drivers
- Core Networking (Datapath, TCP/IP Stack)
- Embedded Systems

## Scope of Computer Architecture and Organization

There are some companies which works in different stuffs like Processor Design, Memory Design, Circuit Design, Embedded System, BIOS Development, x86 Based Development, Architecture Based Design, Drivers Development, Kernel Development, and companies are Intel, ARM, AMD, Applies

Micro, Nvidia, Marvel Semiconductor, Applied Electronic, Xilinx, Seagate, Sandisk, Cisco, Juniper, Novell, Texas Instrument, MediaTek, StMicro Electronics, HP, Brocade, Broadcom, Robert Bosch, Philips, Honewell, Toshiba

One thing Such Job are not that easy to get as freshers from a normal college.

In research also these companies can be destination also including IITs/CDAC/IISC/NIT/Good college research programs.

Therefore if we talk in the context of India,

1) If graduation is done from normal college go for CDAC (Embedded System or System Programming, Can Check Vector as well) or go for Masters (Specialized) In India as well

2) If graduation from Tier1 College then can apply to above listed companies.

## Scope of Computer Graphics

- InDesign
- Illustrator
- Photoshop
- Modo
- After Effects
- Text Wrangler (for HTML/CSS)
- Lightroom
- SketchBookPro

## Scope of DBMS

Top Key Players Mentioned in the Data Base Management Systems Market Are:

- Microsoft
- Software
- IBM
- Oracle
- PostgreSQL
- NCR
- Pervasive Software
- Tandem
- FileMaker

## Scope of JAVA

The future of [Java developers](#) will be bright. About 3 billion mobile phones, 125 million TV sets, and each Blu-Ray player are working in Java. **Google's Android operating system also uses Java APIs.**

Following are the basic topics which you must know as a Java developer

- JSP / Servlets.

- Web Frameworks like Struts / Spring.
- Service-Oriented Architecture / Web Services - SOAP / REST.
- Web Technologies like HTML, CSS, Javascript, and JQuery.
- Markup Languages like XML and JSON.

## Scope of Python

- Research Analyst
- DevOps Engineer
- Python developer
- Data Analyst
- Software developer

## Scope of Embedded System

Embedded System is the future. Every industry needs some artificial intelligence into it and artificial intelligence can be given by embedded systems only. No electronic product is without embedded systems in the market. And who is going to develop future embedded systems? You ! the Embedded Engineers.

- According to a survey embedded systems industry will reach \$360 billion by end of 2020.
- Jobs in embedded industry will reach to 12 Lac by 2020.
- Companies like TCS, Wipro, L&T, TATA, Elexsi, Infosys, Zensar, Tech Mahindra, Patni, Volvo, Airbus, Toshiba are investing heavily in their embedded systems operations in India
- Mobile manufacturers like Foxcon are setting up their plant in India.
- Experts say what IT was in 90s is where Embedded Systems stands now and is ready to explode.

## Embedded Systems Jobs

- Medical Electronics
- Aerospace
- Automobiles
- Defence
- Toys
- Consumer Electronics
- Food industry
- Telecommunication
- Industrial machines

- Space
- Agriculture
- Construction

## Scope of IOT

- **IoT device:** IoT device can be wireless sensors, software, actuators and computer devices. They are fixed to a specific object that runs through internet.
- **IoT Gateway:** IoT gateway is a device or a software program that serves as a connection point between cloud and multiple IoT devices.
- **Network:** Network is the bridging element that connects an array of IoT gateways to the Cloud platform by traditional TCP/IP network.
- **Cloud:** Cloud is a platform which takes massive volumes of data generated. They receive them via IoT gateways which in turn has tons of devices behind them.
- **Applications:** The synthesized data for the end user to derive meaningful insights. The application typically provides a User Interface (UI) to the end user.

## Scope of Data Mining

- **Artificial neural networks:** Non-linear predictive models that learn through training and resemble biological neural networks in structure.
- **Decision trees:** Tree-shaped structures that represent sets of decisions. These decisions generate rules for the classification of a dataset. Specific decision tree methods include Classification and Regression Trees (CART) and Chi Square Automatic Interaction Detection (CHAID).
- **Genetic algorithms:** Optimization techniques that use process such as genetic combination, mutation, and natural selection in a design based on the concepts of evolution.
- **Nearest neighbour method:** A technique that classifies each record in a dataset based on a combination of the classes of the k record(s) most similar to it in a historical dataset (where k  $\geq 1$ ). Sometimes called the k-nearest neighbour technique.
- **Rule induction:** The extraction of useful if-then rules from data based on statistical significance.