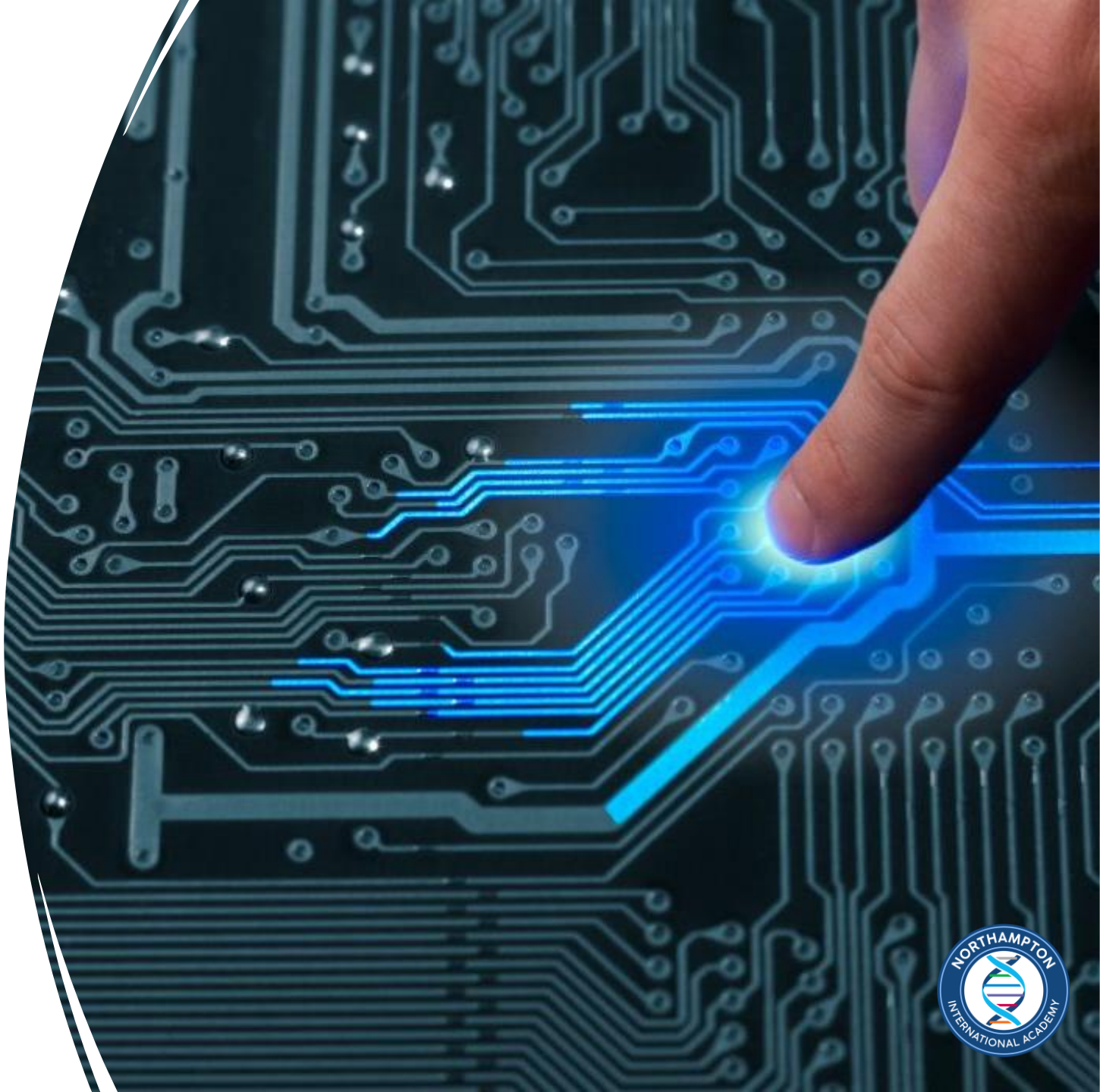
Computer Science

Why choose it as an A level?



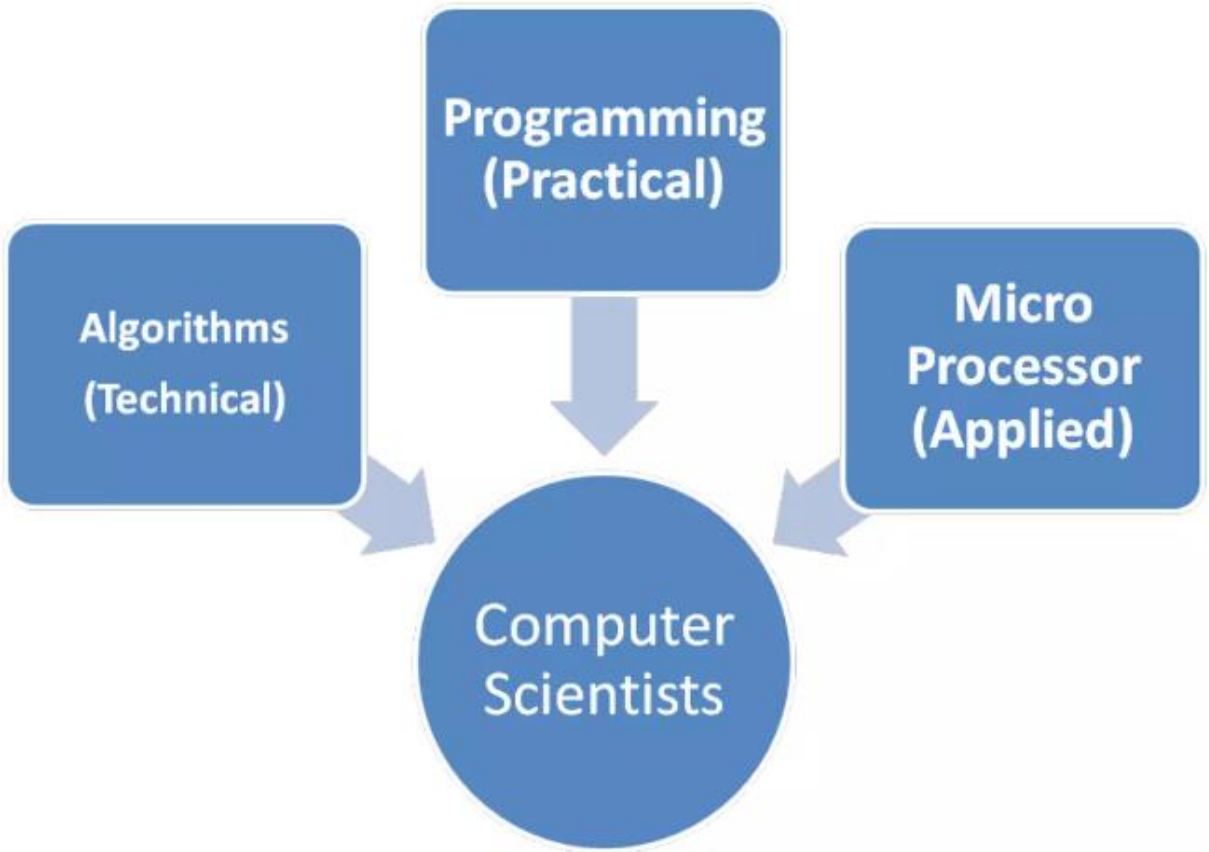
Why study computer science?

- It encompasses many things.
- There is a multiplicity of university and industry courses available.
- A lot is happening in many fields.
- It’s an exciting time to be involved.
- Skilled computer scientists are highly employable.
- Employment of Computer Science Engineers is the fastest growing occupations
- And is projected to increase by 38% through the decade

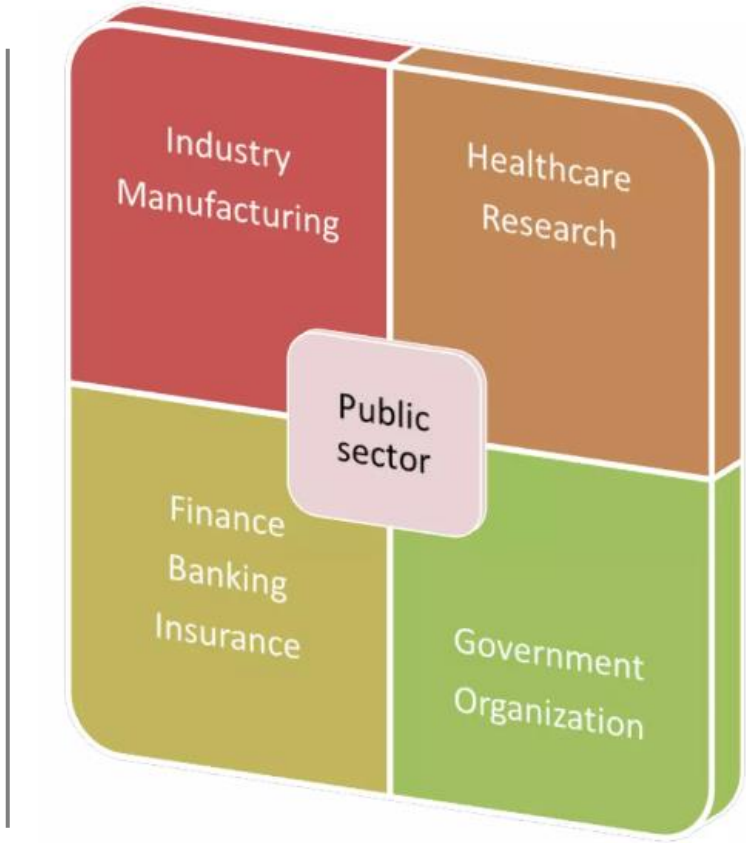
Which means…?

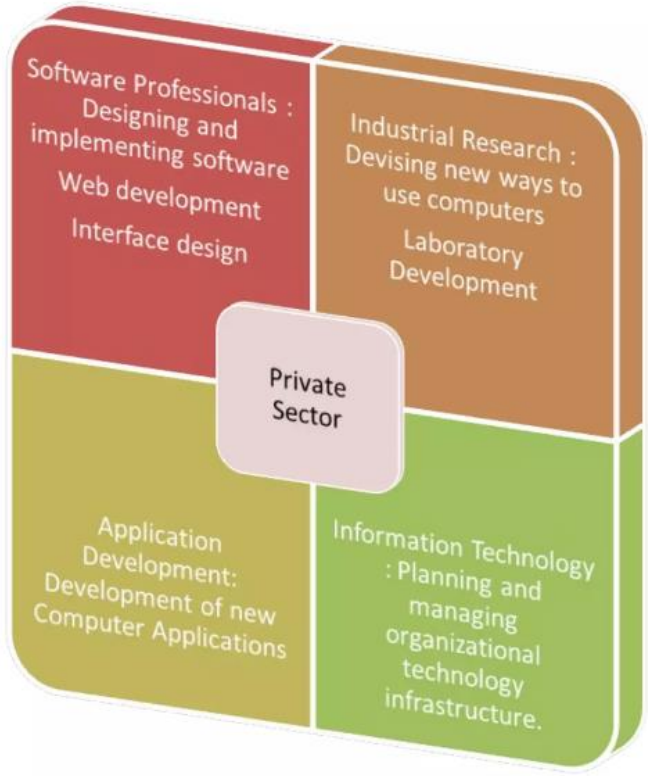
- The most important aspect of computer science is problem solving, an essential skill for life
- Study the design, development and analysis of software and hardware used to solve problems in a variety of business, scientific and social contexts
- Because computers solve problems to serve people there is a significant human side to computer science
- It allows you to be ambitious and opens doors for you globally!
- Robotics, Drones, Coding, Cyber Security, Gaming technology will in the next few years be the big earners

The work of computer scientists falls into three categories:




Field Job
• Private Sector
• Public sector
• Government Sector
Research
• MTech/PhD
• Scientist: ISRO, BARC, DRDO
Management
• MBA in Operations
• PGDM in Marketing
• Training institute


Industry
Manufacturing
Healthcare
Research
Public sector
Finance
Banking
Insurance
Government
Organization

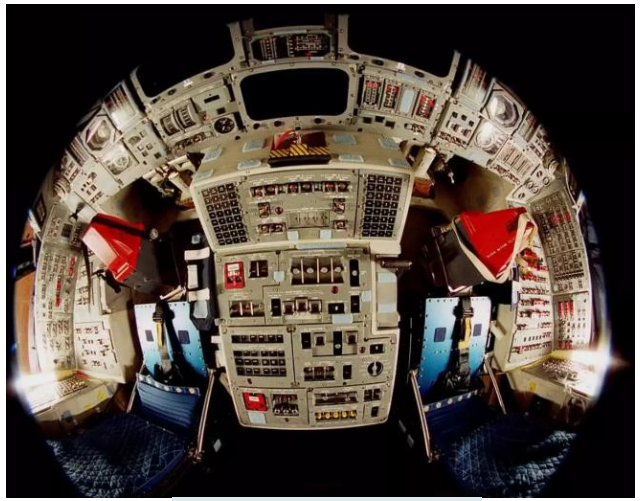

Software Professionals : Designing and implementing software
Web development
Interface design
Industrial Research : Devising new ways to use computers
Laboratory Development
Private Sector
Application Development: Development of new Computer Applications
Information Technology : Planning and managing organizational technology infrastructure.

Typical PhD projects

- Using AI to know when to pick delicate fruits like strawberries
- Nano-technology
- Software to diagnose patients
- Software to analyse stars and galaxies
- The possibilities are endless

New Frontier of Computer Science

Robots

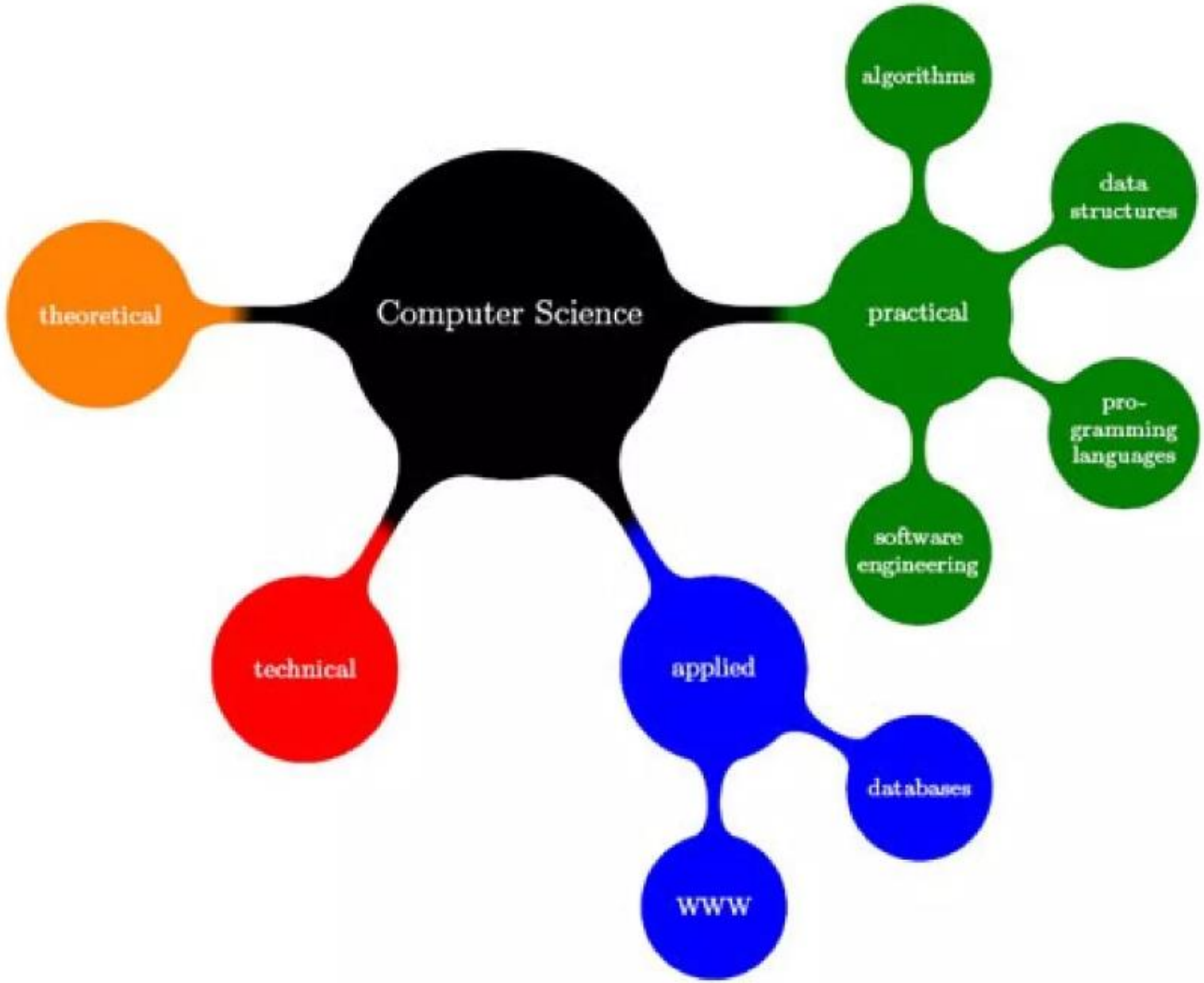


Space Centre

A level OCR Computer Science

- A level – builds on knowledge of GCSE Computer Scienc
  - Computer systems (2 hours 30 minutes: worth 40%
  - Algorithms and programming (2 hours 30 minutes: worth 40%)
  - Programming project (worth 20%)
  - This is a real-life project. For example – create a computer system using Python, SQL database back and web front end,
  - Or create a board game that has different levels
  - Create a NIA Location journey map
  - Student academic result tracker
  - You choose what you want to do

OCR
Oxford Cambridge and RSA


Computer Science
theoretical
practical
algorithms
data structures
pro-gramming languages
software engineering
technical
applied
databases
WWW