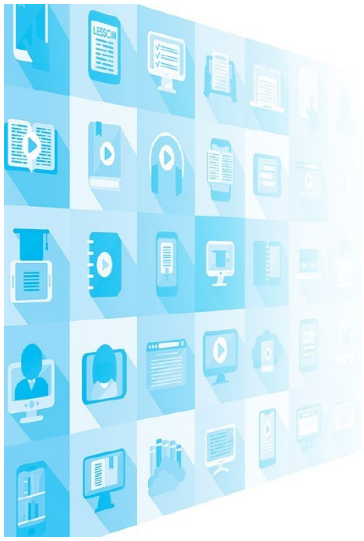
Virtual Open Day 2022

11:55pm – 12:10pm



An Invitation to IT and Computer Science

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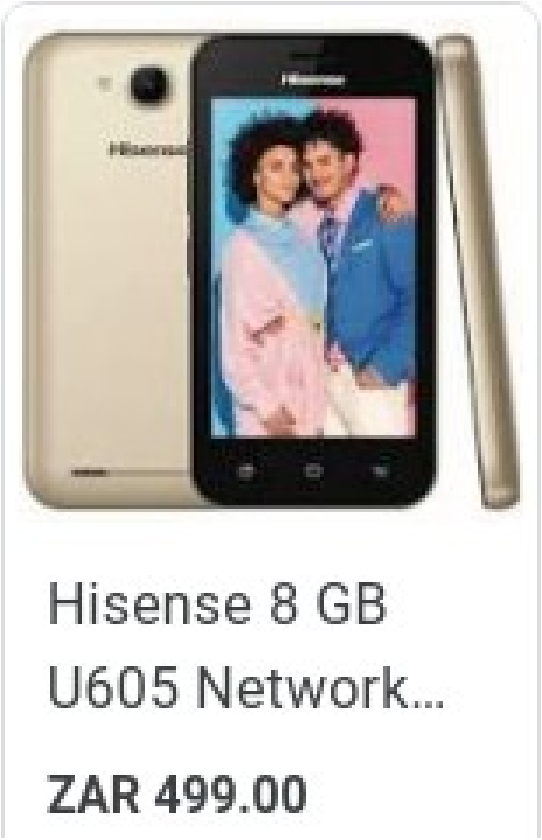
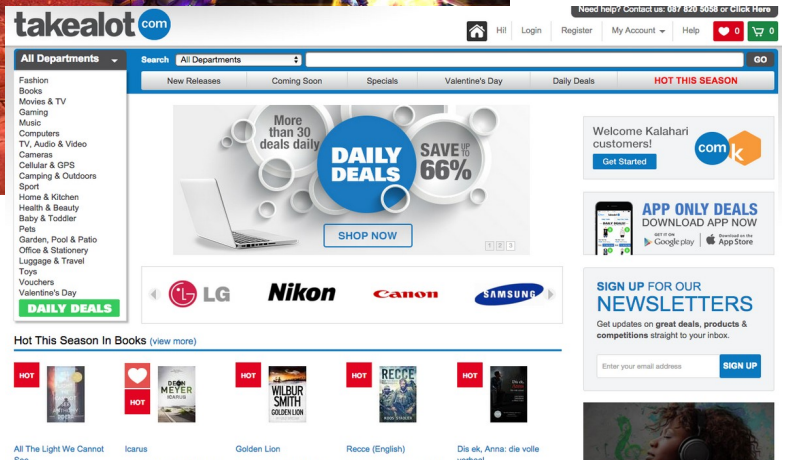
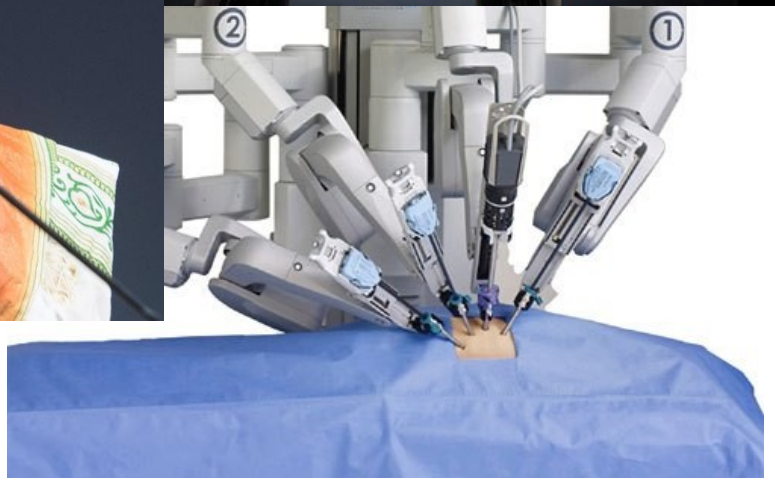
Our Current Changing Society 1/2



Our Current Changing Society 2/2



IT in a Future World



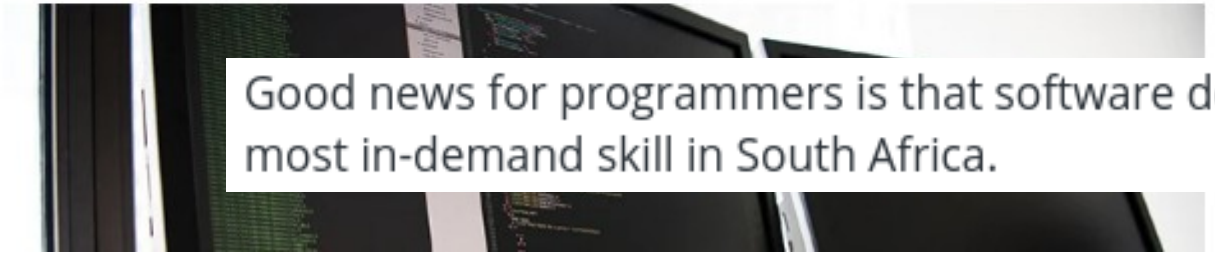
Why Study IT?

- Change the world!
- Be happy.
- Be excited.
- Stability/Job security.
- Lots of growth opportunities.
- Make money.
- Get famous.
- Study further or teach.
- Complement something else.
  - Something for fun;
    something for a career.

What about jobs in South Africa?

Software developer salaries in South Africa in 2021

Staff Writer 18 May 2021



Intermediate Software Development Salaries (CTC)		
Region	**From**	**To**
Gauteng	R48,442	R65,604
Western Cape	R45,012	R56,685
KwaZulu-Natal	R42,755	R55,882

https://mybroadband.co.za/news/business/397239-software-developer-salaries-in-south-africa-in-2021.html

What does an IT graduate do?

- Not just sitting in a dark room by a terminal
- Learn by doing
- Variety
- Helping people
- Entrepreneurial
- No single career/degree

5 Branches of IT

- Computer Science
  - Foundations and principles (software/algorithms)
- Information Systems
  - Business processes and information-centric applications
- Software Engineering
  - Software development processes
- Information Technology
  - Applications of hardware and software
- Computer Engineering
  - Hardware and communications

IT @ UCT

- School of IT
  - Department of Computer Science
    - BSc/BBusSci/BA degrees in Computer Science
  - Department of Information Systems
    - BCom/BBusSci/BA degrees in Information Systems

- Other departments
  - Department of Electrical Engineering (Engineering Faculty)
    - BSc (Eng) in ElecEng or Computer Engineering

What is Computer Science?

- Computer Science (CS) is the study of:
  - Computer software
  - Algorithms, abstractions and efficiency
  - Theoretical foundation for computation
- What you learn in a Computer Science degree:
  - Principles of computation
  - How to make machines perform complex tasks
  - How to program a computer
  - What current technology exists and how to use it
  - Problem solving

Computer Science @UCT topics

- First year
  - Problem solving and programming in Python
  - Object-oriented design in Java
- Second year
  - Data structures, databases, human-computer interaction, parallel computing, computer architecture, software engineering
- Third year
  - Operating systems, networks, algorithms, advanced software engineering, (C++, machine learning)
- Honours
  - Compilers, functional programming, research and innovation, AI, HCI, big data, games/graphics, network security, ...

Why Study CS @ UCT

- Internationally recognised and aligned curriculum (benchmarked against ACM, previously accredited by British Computer Society).
- CS department ranked highest in country.
- Innovative teaching (research-led, constant curriculum revisions, etc.).
- Diverse staff interests.
- Enthusiastic staff and students!

So what degrees are Computer Science?

- BSc with a major in Computer Science
- BBusSci with a specialization in CS
- BCom with a specialization in IS+CS
- BA with a major in Computer Science

What do I need to get into CS?

- Meet points score for admissions.
- High school Mathematics!
  - 70% in NSC
- 60% in Physics or IT if you want a BSc
  - otherwise you can get a BBusSci, BCom (IS+CS) or BA (CS)

- Everything else we will teach you.
- No Matric IT needed!
  - Seriously, we can teach this stuff better :)

What should I apply for (CS or IS)?

Focus on algorithms and software	Combined focus on algorithms + business	Focus on business and information systems	CS + Science/ Math	IS + Humanities	CS + Humanities
1st: BSc(CS)	BBusSci(CS/IS) BCom(IS+CS) BSc(CS+IS)	1st: BCom(IS)	BSc	BA Informatics	BSc / BA
2nd: BBusSci(CS)		2nd: BBusSci(IS)			

Thank you for listening!

IT | SCHOOL OF IT

If you have questions:

Attend the Science Q&A session

Visit the School of IT website:
http://www.sit.uct.ac.za/