

COMPUTER SCIENCE

WHY DID YOU CHOOSE THIS CAREER?

From the age of 13, when I picked up a book on computer programming in visual basic 6 and learnt programming, I fell in love with programming. I used a lot of my free time creating various applications. This led me to pursue a degree in Computer Science. Simultaneously, I had a deep passion for teaching others the skills I learnt. I really enjoyed teaching others (such as my brothers and friends) what I knew. I felt the deep need to impart the knowledge (which is power) that I had gained to others. It was ultimately fate and God's grace that led me into a lecturing and research position in the University in which I could put both of those things together.

WHAT FORMAL QUALIFICATION DID YOU HAVE TO ATTAIN, AND WHERE?

I pursued a double major in Computer Science and Physics, followed by an Honours, Master's and eventually a PhD in Computer Science, all at the University of the Western Cape. I also enrolled in, and completed, the "Professionalization of Teaching" course at the University.

WHAT DOES YOUR JOB ENTAIL?

Teaching courses to students at undergraduate and Honours level. Learning. Computer Science is arguably the fastest changing field. This means that one needs to be able to learn to keep (somewhat) up to date. Supervising postgraduate students. Writing research papers. Attending and presenting at conferences.

WHAT DO YOU ENJOY MOST?

Two things: 1. The feeling of having successfully taught complex ideas and having had students deeply learn and understand them, and giving them the ability to put it into practice in the practicals. 2. Student supervision. It is deeply satisfying to see the technological ideas that I have fully materializing in the form of completed student projects.

WHAT DO YOU LEAST ENJOY?

Marking.

IN 1 SENTENCE, DESCRIBE YOUR JOB?

My job entails teaching computer science, supervising postgraduate students and furthering research into the development of novel applied technologies.

EXPERIENCE VS TRAINING?

I would say: Experience. Training can give you a good theoretical background on teaching and supervision, but students are extremely diverse. At the end of the day, one can only gain a good grasp by getting into it.

ADVICE FOR GRADE 11 AND 12 LEARNERS CONSIDERING THIS CAREER?

Further your studies as far as possible. Aim for at least an Honours degree, but preferably a Master's degree. A PhD would do you even better and put you years ahead, especially in our country in which PhDs are very scarce. By obtaining your PhD, you would literally become a one-in-a-million graduate. Also, consider all of the information I've provided and decide whether this is something you would enjoy.

TYPE OF PERSONALITY THAT WOULD ENJOY THIS KIND OF CAREER?

Someone who is highly empathetic and compassionate to others, has a strong passion for the specific field that they are lecturing and/or supervising, and enjoys teaching others what they know.

POTENTIAL FOR GROWTH - WHERE CAN YOUR CURRENT POSITION LEAD?

I am currently managing a team – growth at this stage for me is to keep updated in all IT skills, and to coach and mentor new employees to achieve their full potential.

3 IMPORTANT QUALITIES THAT YOUR POSITION REQUIRES?

An excellent grasp of, and deep passion for, Computer Science. Deep empathy with others and the ability to relate to them. The ability to come up with new and interesting ideas.

WHAT QUALIFICATIONS DO I NEED?

It depends on the University, but most Universities now require at least an MSc or even PhD in Computer Science for a Junior Lecturing or Lecturing position. Again, this is not set in stone. There may be Universities that treat a BSc in Computer Science as being sufficient.

DOES THE INDUSTRY (AND TYPE OF POSITION) THAT YOU ARE IN, FACE GENDER BIAS?

Not that I'm aware of or have seen. There are many women that have attained professorships in Computer Science in South Africa.

IS CONTINUING EDUCATION AND FURTHER STUDIES IMPORTANT IN YOUR TYPE OF CAREER?

Not only important, but an absolute pre-requisite.

Describe an average day?

Delivering one or more lectures. Administering tutorials and practicals. Meeting with postgraduate students that I supervise to discuss their progress. Reading and critiquing students' thesis drafts and/or papers. Marking assignments or tests. Reading and/or writing work-related emails. Working on research papers. Attending meetings of the department and/or faculty. Attending a conference over a few days (this happens once in a while).



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