Investigating the Trends in Computer Science Careers - Humza Khokhar

I. Trends in Computer Science Careers

Trends in computer science fields have changed greatly as time has passed. At the current rate of growth in technology, these fields continue to expand and change. Some key aspects behind computer science roles are factors like outsourcing, computer science education, and others like demands. A big situation amongst the computer science field is job outsourcing, where jobs at all levels; local, national, international are often outsourced to the cost efficient organization. A big example of outsourced jobs is tech support roles, companies such as HP outsource their tech support to technicians in countries of cheaper wages to be cost effective, countries like India & Philippines (Tabari, 2019). Another prominent organization that corporations work with is Tech Mahindra a company based in India offering IT solutions, that has a presence in 90 countries (Corporate Timeline, n.d.). Although a lot of computer science work is outsourced, there are still jobs and roles not outsourced. A big example is companies in Silicon Valley, the job roles present there are often of a high caliber and not outsourced. The trends in enrollment for computer science programs has been fairly consistent, the majority of universities require Advanced Functions, Calculus and Vectors, English and any other 4U courses, oftentimes they recommend a course like Data Management (Computer Science, n.d.), or Introduction to Computer Science (Computer Science, 2019). A change over time in admissions has been the increasing admission averages (Jerema, 2010). The more current prominent in demand top level computer science roles are roles like Cybersecurity Engineer, and roles involving Artificial Intelligence (AI) such as Machine Learning Engineer (Rayome, n.d.).

II. Guiding my Career Decision

The current trends in the computer science field are very helpful in guiding me in the right direction of a job role I should achieve to be in and build my path to it. Knowing more of the common tasks are outsourced, I now narrow my target to a very niche area of expertise where I can be successful and prosper. Currently there is a huge trend in Artificial Intelligence, but I have seen a lot of software solutions with AI, yet a lot of the objects in our everyday lives involve machinery such as cars, appliances, and other hardware. Hence my current decision is to focus on the cross section between hardware and AI, and become very strong & proficient within the field. In doing so I can potentially have a combination role for a job, a mix of hardware developer and AI developer which are currently separate fields.

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