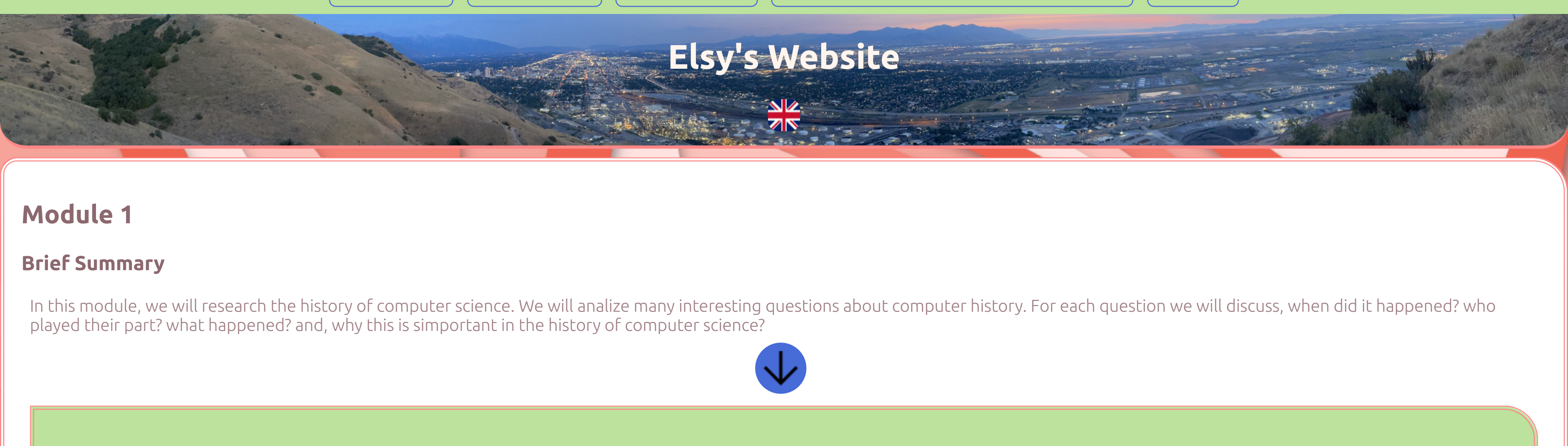

Elsy's Website

Module 1

Brief Summary

In this module, we will research the history of computer science. We will analize many interesting questions about computer history. For each question we will discuss, when did it happened? who played their part? what happened? and, why this is simportant in the history of computer science?

1801

1. What does a loom have to do with Computer Science History?

In 1801, Frenchman Joseph Marie Jacquard demonstrated an easier way to create patterns for fabric, through the invention of the Loom. They created multiple punched card with holes, that told pins how they should be raised and pulled. Through the pulling of cords, the fabric wrapped around created an automated pattern. The loom made us realize the analogy of creating a Squence of Operations to create or control something different. This is important for computer science history because it inspired Charles Baggage to use a similar punch program in his Analytical Engine (mechanical computer) to create more than mathamatical tables.

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1821

2. Did the Difference Engine ever work?

In 1821, Charles Baggage thought of the idea of the difference engine to help create caculations faster and easier. He did build small protoypes of the engine. Someone would register their data, then a single operation will take place and it will produce a solution. It had a memory for data to be processed for later. Including, it would print its output on soft metal to produce a printing plate. It is important for computer science histroy because after this he concieved a better idea with the foundations of the difference engine. A machine to create more than one caculation at a time with unprecedented accuracy, the Analytical Engine.

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1843

3. Who is Ada Lovelace?

In 1843, Ada Lovelace translated and annotate an article written by Italian Luigi Federico Menabrea. She analized a couple of things, how the Analytical Engine could program various answers for computing Bernoulli numbers. Shows that the the computer is working and how powerful this engine is. This connects to the next point that the Squence of Operations, is seperate from the date and results. Showing it could do more, and describing artificial intelligence before its time. This is important for computer science history because she was able to read words beyond the screen, and connecting software with hardware.

Citations

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1880

4. What was the Hollerith Machine

In 1880, the census took 7 years to count, everyone was fed up of taking the time. So, Herman Hollerith, who worked for the census of 1880, invented a punch card tabilating machine. Installed in federal goverment offices in 1888. Where people would punch their data. Then, tabulation started reading the holes on each section. After, the clerk transcribed the data in the dail hands and put it in designated sorter drawer. They would process 80 punch cards per minute. In 1890, the census was completed in 2 weeks. This is important for computer science history because in brought in a new age of automatic data processing, in trying to analyze data from taking months, to weeks, and now maybe seconds.

Citation

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1944

5. What is the Stored Program?

In 1944, John Von Neumann initiate the idea to where a computer store instructions in its memory and when enabled it would do variety of task. The information will go in and be translated in 1s and 0s, binary-code, which sent electronic signals on how to represent or store the data. It goes through all the 1s and 0s until you find the information is needed. This is important for computer science history because which makes it possible for hardware, and software to talk to eachother to manage assets. It is the building block for computers, phones, and any device you would like to hear, watch, and read from.

Citation

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1947

6. Why did transitors replace the vaccum tubes

In 1947, transitors were invented by Lucent Technologies. Transitors amplify a signal thus replacing vaccum tubes and ending the Golden Age of Radio. It is like an electronic switch in computer that heats less and is smaller. The electronic switch had many circuits that can tell which is the active area. This is important for computer science history because it is smaller than a postage stamp. Overtime, they became minicomputers, and started replacing mainframes. It was first seen in 1954, The First Silicon Transistor from Texas Instruments. That establishing of a new era in 1956, where computers are taking less space.

Citations

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7. What computer is patented as the first computer?

In 1947, J. Presper Eckert and John W. Mauchly filed a patent for the ENIAC, A general purpose of automatic computer, as the first computer. It was invalidated for a couple reasons, but most importantly because John Atanasoff was said to build the first automatic electronic digital computer. John Atanasoff in 1939 built a small protoype that can store data and perform addition and subtraction called automatic electronic digital computer. While, the ENIAC was the first programmed computer, once it was given instructions. It could compute artillery range tables and calculations for the construction of a hydrogen bomb. This is important for computer science history because it gave recognition to John Atanasoff-Berry for building his computer earlier on, and it is a device in the public domain for everyone to use.

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1951

8. How has AI (artificial intelligence) changed the game?

In 1951, Christopher Strachey programmed a complete game of checkers using artificial intelligence. Artificial intelligence is a digital computer to perform task like discover meaning, problem solving and many more. This is important for computer science history because in today's age we are using artifical intelligence in Universities, more than Research-Based. Now, we can write essay's, take test with AI. Including, in education, we are using it to help each other learn. The online coding platform, Kodezi, uses AI for coding, debugging their own code, and answer questions about coding in seconds. Another is grammerly, who uses it to fix grammer when writing, but not only showing you better ways to write your sentence.

Citation

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1957

9. What did UoU (University of Utah) have to do with the history of the internet?

In 1957, U.S. goverment had fear of falling behind, which created NASA and DARPA. To develop technologies like, rocket, weapons and computers. Lead to the idea of building a "Galatic Network" a way for everyone to stay in communication. Universities joined ARPANET to make this idea to a reality.This lead to communicatino between UCLA and Stanford, and UoU was the fourth new commer and node. This is important for computer science history because they started build a network to have it for civilians to use it for everyday use and built the internet.

Citation

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1965

10. Was hypertext ever used before the internet?

In 1965, we coined the word hypertext. In 1968, it was Douglas Engelbart who took the stage to show how important hypertext was from jumping to one document to another for presentation. Hypertext is a string to connect one document to another by searching a word or phrase. Hypertext was stored in Hypercard, where it was stored information from anything from images, text, and tables. This is important for computer science history because in macintosh, if you were trying to do research on any kind of a subject. The subject matter will pull up books, magazines, and linking stuff on one go. It was hypertext who would take a step further into building the internet.

Citation

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1971

11. When was the first email sent?

In 1971, Ray Tomlinson through ARPANET combining 3 programs to sent his first email. It was adressed to himself, and can only been in the same ARPANET Network.Through ARPANET, many first emails were sent like Queen's Elizabeths the II, and SPAM emails. This is important for computer science history because they evolutionized how emails were seen, and till today we still use @ to address the person. In the 1990s it was wildly used in the birth of the internet, that they needed to build software to seperate and sort it from spam emails, dates, searching and so on.

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1976

12. When were monitors first used?

In 1976, Apple I was the first computer that had people plug into a video monitor. A couple years before, they realized they can use vacuum tube with phosphors to emit light when it is hit by electrons. However, it was very big monitors and bulky. This is important for computer science history because we needed to pass that era to get to Liquid Crystal Display for portable use and it is extremely energy-efficient thin displays. After this, their might be a new are like head-mounted display(VR) into play.

Citation

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1993

13. When was Mobile Apps born?

In 1993, IBM introduced their first phone to the world for general use, like caculator, calendar, contact book and clock. However, not until 2008 we see developers build innovating apps because Apple released their APP store, with games, productivity, and many more. This is important for computer science history because we then pursue android operating systems, and software developing kits to lead more apps out their for creativity, productivity, education, wellness, streaming services, and communities were built not only in the U.S., but in the world.

Citation

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1990

14. When were web browsers first used?

In 1990, the first browser created was by Tim Bernes-Lee, making TheWorldWideWeb. It was connected through hyperlinks. It was to serve clients to request anything they would want through a search bar and be able to go back to navigation. This is important for computer science history because it stated browser wars to see which can bring new capabilities beyond allowing images embedded in text. Microsoft starting claiming 50% of the market over netscape. Over years, Apple Safari took over in mobile applications, and chrome in desktop. They are still running to see who is faster and gives a better experience to the market.

Citation

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