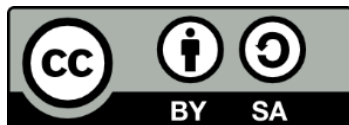


ΑΓΓΛΙΚΑ Ι

Ενότητα 4α: Great Personalities in Computer Science

Ζωή Κανταρίδου
Τμήμα Εφαρμοσμένης Πληροφορικής



Ευρωπαϊκή Ένωση
Ευρωπαϊκό Κοινωνικό Ταμείο



ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ
ΕΙΔΙΚΗ ΥΠΗΡΕΣΙΑ ΔΙΑΧΕΙΡΙΣΗΣ

Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης



ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΩΝΙΚΟ ΤΑΜΕΙΟ

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Match the person with the project or achievement that he is associated with.

Person	Project/achievement
C. Babbage	a. Manhattan Project
T. Berners-Lee	b. Enigma Machine
D. Knuth	c. programmable computer
J.von Neumann	d. world wide web
A. Turing	e. METAFONT & T _E X

Rephrase the following sentences using your own words as much as possible. [1]

- ◎ He practically created the field of rigorous analysis of algorithms, and made many seminal contributions to several branches of theoretical computer science.
- ◎ It is a real achievement to publish a mathematics paper while still a doctoral student, but he managed to publish two papers in the year he completed his undergraduate degree.
 - > His earliest achievement
 - > Although...
 - > Despite...

Rephrase the following sentences using your own words as much as possible. [2]

- He was caught hacking with a friend and was subsequently banned from using the university computer.
- It was built to tolerances achievable in the 19th century, indicating that Babbage's machine would have worked.

Find words or phrases in the text related to:

- Academic professions
- Academic subjects
- describing sb's achievements in life
- Being the first to do sth
- Programming
- Cryptography

Answers[1]

Academic professions

- logician, and cryptographer
- mathematician, philosopher, mechanical engineer
- Senior Research Scientist
- Professor Emeritus
- alumnus

Academic subjects

- Algorithm, artificial intelligence,
- nuclear physics, game theory, set theory,
- operator theory, quantum physics, functional analysis,
- economics, computer science,
- numerical analysis, hydrodynamics (of explosions),
- statistics

Answers[2]

Describing sb's achievements in life

- made important contributions in
- he worked out key steps
- made a significant and characteristically provocative contribution to
- provided an influential formalisation
- is a renowned scientist
- one of the most highly respected references in
- made many seminal contributions to
- It is a real achievement

Being the first to do sth

- was a pioneer of,
- He is often considered to be the father of
- he devised,
- pioneered the concept of
- Inventor
- originated the idea of

Match the terms with their encyclopedia entries[1]

•Artificial Intelligence (AI), computer architecture, literate programming, numerical analysis, set theory, statistics, World Wide Web.

1. _____ is the branch of mathematics that studies sets, which are collections of objects. Although any type of object can be collected into a set, set theory is applied most often to objects that are relevant to mathematics. The language of set theory is used in the definitions of nearly all mathematical objects, such as functions, and concepts of set theory are integrated throughout the mathematics curriculum.
2. _____ is the science of the collection, organization, and interpretation of data. It deals with all aspects of this, including the planning of data collection in terms of the design of surveys, experiments and sampling. Statistics is closely related to probability theory, with which it is often grouped. Because of its empirical roots and its focus on applications, statistics is usually considered to be a distinct mathematical science rather than a branch of mathematics.

Match the terms with their encyclopedia entries[2]

•Artificial Intelligence (AI), computer architecture, literate programming, numerical analysis, set theory, statistics, World Wide Web.

3. _____ is the intelligence of machines and the branch of computer science that aims to create it. AI textbooks define the field as "the study and design of intelligent agents" where an intelligent agent is a system that perceives its environment and takes actions that maximize its chances of success. John McCarthy, who coined the term in 1956, defines it as "the science and engineering of making intelligent machines."
4. _____ is an approach to programming introduced by Donald Knuth as an alternative to the structured programming paradigm of the 1970s. The literate programming paradigm represents a move away from writing programs in the manner and order imposed by the computer, and instead enables programmers to develop programs in the order demanded by the logic and flow of their thoughts. According to Knuth, it provides for higher-quality programs, since it forces programmers to explicitly state the thoughts behind the program, making poorly thought-out design decisions more obvious.

Match the terms with their encyclopedia entries[3]

•Artificial Intelligence (AI), computer architecture, literate programming, numerical analysis, set theory, statistics, World Wide Web.

5. _____ is the study of algorithms that use numerical approximation (as opposed to general symbolic manipulations) for the problems of continuous mathematics (as distinguished from discrete mathematics). Numerical analysis naturally finds applications in all fields of engineering and the physical sciences, but in the 21st century, the life sciences and even the arts have adopted elements of scientific computations.
6. In computer science and computer engineering, _____ is the conceptual design and fundamental operational structure of a computer system. It's a blueprint and functional description of requirements and design implementations for the various parts of a computer, focusing largely on the way by which the central processing unit (CPU) performs internally and accesses addresses in memory. It may also be defined as the science and art of selecting and interconnecting hardware components to create computers that meet functional, performance and cost goals.

Match the terms with their encyclopedia entries[4]

- Artificial Intelligence (AI), computer architecture, literate programming, numerical analysis, set theory, statistics, World Wide Web.

7. The _____ is a system of interlinked hypertext documents accessed via the Internet. With a web browser, one can view web pages that may contain text, images, videos, and other multimedia and navigate between them by using hyperlinks. The World-Wide Web (W3) was developed to be a pool of human knowledge, and human culture, which would allow collaborators in remote sites to share their ideas and all aspects of a common project.

Put the verbs in the correct form

Steven Paul Jobs (born February 24, 1955) is currently the CEO of Apple Computer and is a leading figure in both the computer and entertainment industries. He co-founded Apple Computer with Steve Wozniak and Ronald Wayne in 1976. He (help) _____ popularize the concept of the home computer with the Apple II, and (be) _____ one of the first to see the commercial potential of the GUI and mouse. He (oversee) _____ the integration of these technologies into the Apple Macintosh. He (lead also) _____ Apple Computer through its recent resurgence. He (also be) _____ the Chairman and CEO of Pixar Animation Studios, since its inception. Pixar is an independent film production company that (produce) _____ acclaimed animated shorts and features such as *The Incredibles* and *Toy Story*. It (recently acquire) _____ by The Walt Disney Company for \$7.4 billion in stock. The transaction (make) _____ him Disney's largest individual shareholder and (give) _____ him a seat on Disney's board of directors.

Complete the missing prepositions

Born on Oct. 28, 1955, **Bill Gates** grew ___ in Seattle with his two sisters. He attended public elementary school and the private Lakeside School. There, he discovered his interest ___ software and began programming computers ___ age 13. ___ 1973, he entered Harvard University as a freshman, where he lived down the hall from Steve Ballmer, now Microsoft's chief executive officer. While ___ Harvard, he developed a version ___ the programming language BASIC ___ the first microcomputer - the MITS Altair. In his junior year, he left Harvard ___ devote his energies to Microsoft, a company he had begun ___ 1975 with his childhood friend Paul Allen. Guided ___ a belief that the computer would be a valuable tool ___ every office desktop and ___ every home, they began developing software for personal computers. His foresight and his vision for personal computing have been central ___ the success of Microsoft and the software industry.

Find a word from the same family to complete the paragraph

Paul Gardner Allen (born January 21, 1953) is an American (enterprise) _____ who established himself by co-founding Microsoft with Bill Gates. He (regular) _____ appears on lists of the richest people in the world; He also owns two (profession) _____ sports teams: The Seattle Seahawks of the (nation) _____ Football League and the Portland Trail Blazers of the National Basketball (associate) _____. He was born in Seattle and attended Lakeside School, a (prestige) _____ private school in Seattle, where he (make friends with) _____ Bill Gates, who was two years his junior but shared a common (enthusiastic) _____ for computers.

Τέλος Ενότητας



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