History of ai

In 1943 two scientists discovered the brain neural network models that there might be some part of the brain neural network for the decision-making reasoning to solve the real-world problem by human brain. Then why not we create such type of model in the computer or in the machines that can do the same as the brain of the human can do for doing the daily or difficult tasks.

Then in 1950 the scientist Alen truing introduced the Turing test that work on the computer machine intelligence, he published the influential paper named it as computer machinery and intelligence.

In 1955 a scientist names the intelligence of the machine as artificial intelligence, that is developed on list programming languages and this ai lab is developed by the combined efforts of the Stanford and MIT university in USA.

In 1956 in Dartmouth conference bring together pioneer researchers that lead to the founding of new field that is AI field.

In 1956 a new scientist come with the new concept of the intelligence explosion and ai cloud, all done by the advancement in the field of statistics that is Bayesian statistics.

In 1966 a scientist created ELIZA system that is the NLP system, that is a catboater that simply engage in the conversational dialogs.

In 1969 Marvin wrote first influential book on the AI. that made knowledge representation, computer vision and neural networks.

In 1975 as Meta Dental expert form Stanford pioneering a rule based expert system for analyzing the chemical compounds using the knowledge for the human experts.

In 1979 jimmy developed the first system that is the scholar system. it is the question answer system based on semantic analysis and knowledge representation.

In 1985 Geoffrey Hinton - Invented Boltzmann machines, an early type of stochastic recurrent neural network architecture that helped revive neural networks research.

1997 - IBM Deep Blue – Chess playing computer that beat world champion Garry Kasparov, milestone achievement in programming.

In 2011 - IBM Watson - Defeated human champions in Jeopardy quiz show, demonstrated capabilities of natural language processing and question answering.

In 2012 - Geoffrey Hinton -Showed effectiveness of deep neural networks, critical breakthroughs that led to AI representative.

Now today ai is transform to robots, vision, speeches and many more.

Harward university article on the history of artificial intelligence

https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence

Job family of AI

Research Scientists
Develop new Al algorithms, techniques, and architectures. Includes roles like

1. Machine Learning Scientist
2. Data Scientist
3. Research Engineer

Data Engineers
Build data infrastructure and pipelines to feed data to Al systems. Includes Data Engineer, ML Engineer, Data Architect.

Software Engineers
Design, develop and maintain the software systems that power Al applications. Examples are Al Engineer, ML Developer, Roboticist.

Business Development
Focus on strategy, marketing and partnership roles that commercialize Al technologies. Includes Al Strategist, Product Manager, Business Developer.

Project Managers
Oversee Al system deployment, cross-functional coordination and setting roadmaps. For example, Al Project Manager.

Data Annotation Specialists
Manually label and prepare datasets to train Al algorithms. Role is Data Annotator or Data Labeler.

Applied Scientists
Work on applying Al systems to solve real-world problems in various industries like retail, healthcare etc.

UX/Ul Designers
Design interfaces that enable easy human interaction with Al systems. For example, Conversational Ul Designer.

Ethical AI Experts
Specialists who assess Al for fairness, transparency, bias, and other ethical considerations. Includes roles like Al Ethicist.

Technical Writers
Create documentation and guides to explain AI technologies to end users and other stakeholders.

Prompt Engineers
Prompt engineering is an emerging field in artificial intelligence focused on crafting optimized prompts to get the best performance from large language models like GPT-3, GPT-4, Llama.

Data Scientist: The Sexiest Job of the 21st Century

https://hbr.org/2012/10/data-scientist-the-sexiest-job-of-the-21st-century

Is Data Scientist Still the Sexiest Job of the 21st Century?

https://hbr.org/2022/07/is-data-scientist-still-the-sexiest-job-of-the-21st-century

Three things to be the AI engineer or the data scientist:
1. Coding
2. Mathematics and statistics
3. Domain knowledge

Why should anyone learn the AI?

1. Be an informed citizen - AI is shaping products, policies, and progress. Basic AI literacy allows one to be informed about its evolution.
2. Identify misinformation - Fake news and hype about AI abounds. Learning AI basics helps identify misconceptions and falsities.
3. Understand AI's limits - Media portrayal often sensationalizes AI capabilities. Grasping fundamentals allows one to separate fact from fiction.
4. Prepare for societal impacts - AI will transform jobs, privacy, security and more. Learning AI helps citizens prepare for coming changes.
5. Appreciate technological advances - Understanding how AI algorithms work provides appreciation for modern marvels like autonomous cars and voice assistants.

Why should I learn the python language as a programming language?

- Build models and systems from scratch with flexibility.
- Debug, optimize model performance through algorithms.
- Customize AI solutions for your specific needs.
- Handle complex data processing, deployment, workflows.
- Access, modify, enhance open-source AI libraries.
- Stay current as new techniques, frameworks emerge.
- Gain deeper insight into how algorithms work.
- Collaborate effectively with data scientists on solutions.

- Open career opportunities in Al research and development.
- Unlock the full potential of Al models and applications.
- Simple and readable syntax makes it easy to learn.
- Supports rapid prototyping and development for Al apps.
- Huge ecosystem of Al libraries like TensorFlow, Keras, PyTorch, etc.
- Tools for math, science, data analysis - NumPy, Pandas, Matplotlib.
- Cross-platform and integrates well with databases, web, cloud.
- Interactive coding for testing and experimentation boosts productivity.
- Expansive community provides learning resources and support.
- Industry wide adoption for Al development and production.
- Hands-on coding builds deeper intuition about Al algorithms.
- Strong Python skills make you highly employable in Al roles.
- Skills transferable to other programming languages like.
- LinkedIn's 2020 Emerging Jobs Report found that Python was the #1 most required hard skill for machine learning roles, mentioned in 46% of postings.
- A Cloud Academy survey of technology hiring managers in 2021 found.
- Python to be the top programming language skill sought after for data.
- science and machine learning roles at 75% demand.
- According to a Kaggle survey of over 23,000 data scientists and ML practitioners in 2021, Python was by far the most popular language, used by 80% of respondents. R came second at 49%.
- A 2020 IEEE Spectrum ranking of programming languages places Python as #1 language in machine learning and data science due to popularity of ML libraries like Pandas, Keras and TensorFlow.
- Burning Glass analysis of millions of Al/ML job postings in 2022 showed Python topped as the most in-demand skill, required in 54% of all postings. SQL and R came next at 29% and 22% respectively.