How Computer Science Advances Other Disciplines
https://www.mtholyoke.edu/~blerner/Applications.html

Biology and Computers: https://www.livescience.com/37590-5-crazy-biotechnologies.html

- Molecular modelling and drug design. Information technology applications using computer as a tool serve as interfaces with laboratory equipment, prediction of protein structure, expert system for molecular design, search engines for gene and protein sequences, and maintenance of vast database resources and many others.
- Medicine to neuroscience to computing
- How computers help biologists crack life's secrets
- Training computers to "think" by simulating brain processes: http://theconversation.com/how-computers-help-biologists-crack-lifes-secrets-48416
- Michael Levitt, a Stanford University professor of structural biology. "Precise molecules and powerful computers are in many ways made for each other." https://cacm.acm.org/magazines/2014/5/174344-how-computers-are-changing-biology/abstract'
- A Computer Just Solved This 100-Year-Old Biology Problem: http://www.popularmechanics.com/science/a15886/computer-scientific-theory/
- http://www.concordia.ca/cunews/main/stories/2016/05/11/why-computers-and-biology-make-good-bedfellows-launch-of-new-workshop-series.html
- The Human Genome Project: http://ethw.org/Biology_and_Computers:_A_lesson_in_what_is_possible
- weather forecasts: http://weatherlabs.planet-science.com/weather-forecasts/where-do-weather-forecasts-come-from.aspx
- Crack detection in eggs in factories

Space Research/ Astronomy: http://www.brighthub.com/science/space/articles/77045.aspx

- Data Analysis and Documentation/ data visualization
- Space Surveillance
- Space Photography
- Space simulations
- Rover or robot manipulation,
- Complex calculations and signal transmissions are some of the many ways that a computer aids astronomy.
- Design of telescopes and instruments through all stages of astronomical observation, data reduction and analysis and, finally, publication of results. -- http://www.roe.ac.uk/roe/support/it/show/show.html

Mechanical Engineering

- Design and develop power producing machines, such as internal combustion engines, steam and gas turbines, and jet and rocket engines. They use computers not only to form preliminary designs for systems or devices, but also to perform calculations that will predict the behavior of the design and to collect and analyze performance data.
- Mechanical engineers also design and develop power using machines, such as refrigeration and air conditioning equipment, robots, machine tools, material handling systems, and industrial production equipment. : https://cse.umn.edu/wp-content/uploads/2015/05/Mechanical-Engineering.pdf

Civil Engineering:

- A combination of structural engineering skills and computer programming skills to develop the structural engineering software which is used ubiquitously throughout the profession.
- Sofware used by Civil Engineers

  Structural Analysis and Design: STAAD Pro, ETABS, SAP 2000 etc.

  Numerical Analysis and mathematical operations: MATLAB, Mathematica, PTC Mathcad etc.

  Simulations and Finite Element Analysis : ANSYS, ABAQUS etc.

  Project Management: Primavera, MS Project.

  Geoinformatics : Arc GIS, GeoMedia Professional.

Computer Science and Electronics:

- Film Making - COMPUTER-GENERATED IMAGERY (CGI) : https://www.ukessays.com/essays/film-studies/computer-technology-in-the-movie-industry-film-studies-essay.php
- Development of a visual monitoring system for water balance estimation of horticultural crops using low cost cameras
- Satellite images: Agricultural plastic waste spatial estimation by Landsat 8 satellite images
- Integration of computer vision and electronic nose as non-destructive systems for saffron adulteration detection
- Sensor Manufacturing: temperature effects for in-situ soil moisture measurement by DPHP sensors