Computer Science

Do you value rigorous academics? Like a challenge? Seek to understand the common threads running through every discipline?

Consider a major in computer science, the formal study of abstract problem-solving. Computers permeate every facet of our society, so more and more careers relate to them: bioinformatics, cognitive science, digital media arts, neuroscience, artificial intelligence, computer graphics, management information systems, human-computer interaction, and intellectual property law. In fact, all fields and organizations welcome the talents of properly trained computer scientists. Learn how to organize and communicate information, use algorithms, procedures or formulas for solving problems, and work with a team to find practical applications.

SELECTED COURSES

- Design and Implementation of Solutions to Computational Problems

- Discrete Mathematics

- Abstract Models for Concrete Problems Using Java

- Computer Organization and Hardware Architectures

- Programming Languages

- Creative Software Architectures for Collaborative Projects

CAREER PATHS

Computer science is a great field with many opportunities. Money magazine rated software architect as the best job in America based on job opportunities, satisfaction and pay. Annual job openings in computer science will likely exceed the number of graduates for the foreseeable future. Opportunities for careers in computer science are both numerous and diverse, and a critical shortage of well-prepared professionals should persist.

WESTMONT

FACULTY HIGHLIGHTS

ANNA ABOUD, PH.D.

Pursues effective and efficient processes in mathematics, data science, and mathematics education.

RUSSELL HOWELL, PH.D.

Has written about science and faith, and has co-authored a textbook in the area of complex analysis.

DAVID HUNTER, PH.D.

Applies algebra, geometry and topology to computing and data
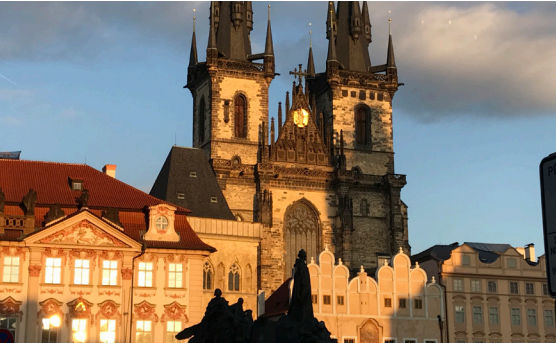
DON PATTERSON, PH.D.

Obtained a patent for a device evaluating infant movement in a NICU

MARYKE VAN DER WALT, PH.D.

A mathematician and musician who applies data science to diabetes

OPPORTUNITIES ABROAD

- Westmont in Asia
- Westmont's Europe Semester
- Westmont in San Francisco
- Westmont Downtown

ALUMNI

Dustin Carroll '04 completed a master's degree in marine science/physical oceanography from Moss Landing Marine Laboratories in Monterey.

Luke Chambers '02 is a programming manager at iParadigms, the leader in the field of textual intellectual property protection and the provider of Turnitin plagiarism detection products.

James Hanson '03 is a security consultant with FishNet Security, a national leader in information security solutions.

Nick Lassonde '03 helped to start a software company purchased by Kaseya, a global provider of IT automation software.

As a Westmont student, **Morgan Vigil '11** organized an after-school computer science program to help local high school students. She interned for Green Hills Software and then worked for them as a test engineer. After completing a doctoral program in computer science at UC Santa Barbara, she joined the faculty at Northern Arizona University, where she directs the Community Aware Networks and Information Systems Lab and works to overcome digital inequality in indigenous communities.

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