

ONLINE MASTER OF SCIENCE IN COMPUTER SCIENCE

You already build the systems.
This is the credential that lets
you **own the architecture.**

A required core in advanced AI and machine learning. A project-based culminating experience. Built on Cal Poly Pomona's existing Computer Science foundation.



30

TOTAL PROGRAM UNITS

100%

ONLINE DELIVERY

~2 YRS

TYPICAL COMPLETION

\$22,500

ESTIMATED TUITION

IS THIS PROGRAM A FIT FOR YOU?

Built for

Working computing professionals with a bachelor's degree in computer science or a closely related field, ready to move from executing technical work to owning the architecture behind it. Designed to be completed alongside full-time employment.

Coming from an adjacent field?

Admission is holistic. Applicants without a computer science degree may be considered when they demonstrate sufficient computing preparation, including fundamentals of programming, data structures, and algorithms.

CURRICULUM CORE

13 CORE UNITS + 15 ELECTIVE UNITS + 2 MASTER'S PROJECT UNITS =
30 TOTAL UNITS

#	COURSE	UNITS	COURSE FOCUS
01	CS 5215 Advanced Machine Learning and AI	3*	A required course, not an elective. Every graduate leaves with advanced training in machine learning and AI.
02	CS 5250 Advanced Computer Architecture	3*	The systems-level reasoning behind how modern computing hardware and software interact.
03	CS 5300 Advanced Algorithm Design and Analysis	3*	The analytical toolkit for evaluating and building efficient, reliable computational solutions.
04	CS 5800 Advanced Software Engineering	3*	The practices behind building software systems that scale and hold up in production.
05	CS 6640 Graduate Seminar	1	A one-unit seminar connecting students to current research and practice in Computer Science.

* Per-course unit values pending confirmation; required core coursework totals 13 units.

ELECTIVES ELECTIVE OPTIONS BY AREA

15 units of CS electives build specialization depth. Students select electives from available course offerings.

01 AI AND DATA SCIENCE Natural Language Processing · Information Retrieval · Computer Vision · Image Processing · Computational Social Systems · Data Mining · Topics in Database Systems	02 ROBOTICS Robotics · Distributed Intelligence in Robotics · Connected and Autonomous Vehicles
03 CYBERSECURITY Information Security · Data Privacy and Security · Machine Learning for Cyber Security	04 SOFTWARE AND INTERACTION Software Verification and Validation · Software Metrics and Models · Human Computer Interaction
05 ALGORITHMS AND COMPUTING SYSTEMS Scheduling Algorithms · Parallel and Distributed Algorithms · Computer Networks · Distributed Computing Systems · Game Theory and its Application in Communication Networks	

THE ONLINE MSCS EXPERIENCE

APPLIED PROBLEM SOLVING

Coursework applies advanced computer science knowledge to defined technical problems.

FACULTY-GUIDED EXPERIENCE

Developed with faculty guidance.

YEAR-LONG MASTER'S PROJECT

2 units, included in the 30-unit degree. No thesis option online.

ONLINE ACCESS

Primarily asynchronous, with periodic synchronous engagement. The department may offer one Winter Session course; Winter enrollment helps but is not guaranteed.

CULMINATING EXPERIENCE

Year-long Master's Project

2 UNITS · INCLUDED IN THE 30-UNIT DEGREE

The online MSCS culminates in a year-long Master's Project. You develop the proposal during the first semester and complete implementation during the second. The online program does not offer a thesis option.

STAGE 01

SEMESTER ONE

Proposal developed

Scope, method, and faculty guidance established.



STAGE 02

SEMESTER TWO

Implementation completed

Culminating project work completed.

FACULTY & ACADEMIC ENVIRONMENT

Faculty expertise across the Computer Science department spans artificial intelligence, robotics, cybersecurity, computer vision, software engineering, cloud computing, human-computer interaction, data science, and distributed systems.

FACULTY COORDINATOR

Dr. Daisy Tang

Robotics · Artificial Intelligence · Human-Robot Interaction · Machine Learning

ftang@cpp.edu

REPRESENTATIVE FACULTY AND RESEARCH EXPERTISE

Dr. Amar Raheja

PROFESSOR &
DEPARTMENT CHAIR

Computer Vision · Image Processing · Machine Learning · Applied AI

Dr. Tingting Chen

PROFESSOR &
GRADUATE
COORDINATOR

Cybersecurity · Big Data Security & Privacy · Health Informatics

Dr. Yu Sun

PROFESSOR

Software Engineering · Cloud Computing · Mobile Computing · Software Entrepreneurship

Dr. Yunsheng Wang

ASSOCIATE PROFESSOR

AIoT · Connected & Autonomous Vehicles · Edge Computing · Cybersecurity

ADMISSIONS REQUIREMENTS

Admission is competitive and based on holistic review.

APPLICANTS FROM OTHER BACKGROUNDS

Applicants who do not meet the preferred qualifications may still be considered if they demonstrate basic capability and knowledge in computer science, including:

PROGRAMMING

DATA STRUCTURES

ALGORITHMS

WHO CAN APPLY

Degree

Baccalaureate degree from a regionally accredited college or university.

PREFERRED QUALIFICATIONS

An undergraduate degree in computer science or a related field, typically computer engineering or electrical engineering, with a **cumulative GPA of 2.8 or higher**.

PREREQUISITE PREPARATION

Calculus, probability & statistics, OOP, discrete structures, data structures, computer organization; upper-division algorithms, architecture, operating systems, software engineering.

GRE

Not required. May be recommended if GPA is below minimum.

APPLICATION MATERIALS

Transcripts and résumé; non-CS applicants also provide supporting materials demonstrating CS capability.

WHERE THE ONLINE PROGRAM IS AVAILABLE · STATE AUTHORIZATION

Cal Poly Pomona is currently approved to offer online programs to residents of the following states: Arizona, California, Colorado, Florida, Hawaii, Idaho, Oklahoma, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, Wisconsin.

TUITION AND VALUE

\$750

PER UNIT

×

30

TOTAL UNITS

=

\$22,500

ESTIMATED PROGRAM TUITION · EXCLUDES FEES

Cal Poly Pomona is a CSU institution. Employer tuition assistance may be worth investigating with your HR department.

Why Cal Poly Pomona for Computer Science?

01 LEARN BY DOING

A project-based culminating experience, not a purely theoretical close to the program.

02 ESTABLISHED MSCS FOUNDATION

Built on Cal Poly Pomona's existing state-support MSCS curriculum, outcomes, and faculty.

03 FACULTY EXPERTISE

Courses taught by faculty active in AI, robotics, cybersecurity, and advanced computing.

04 CSU PUBLIC INSTITUTION

Regionally accredited, with the cost structure of a public university system.

CAREER RELEVANCE

Builds advanced capability across software engineering, computer architecture, algorithm design, and applied AI/ML, relevant to software engineering, AI and machine learning, systems architecture, and data-intensive computing roles.

PROGRAM SNAPSHOT

FORMAT	Fully online	ESTIMATED PROGRAM TUITION	\$22,500
UNITS	30	START	Fall 2027
EXPECTED COMPLETION	Approximately 2 years	APPLICATION WINDOW	Nov 1, 2026 – Jul 1, 2027
TUITION	\$750 per unit	CULMINATING EXPERIENCE	Master's Project

QUESTIONS? CONTACT THE PROGRAM

Dr. Daisy Tang

Faculty Coordinator, Online Master of Science in
Computer Science

ftang@cpp.edu

REQUEST INFORMATION



EXPLORE THE PROGRAM



APPLY

