

Artificial Intelligence, MS—Align (Silicon Valley)

The Master of Science in Artificial Intelligence—Align program is appropriate for students with industry experience who seek to specialize in AI through various pathways such as engineering, health sciences, and computer sciences.

The MS in Artificial Intelligence provides a comprehensive framework encompassing foundational algorithms, theory, and practical applications in the rapidly evolving field of AI. This program seeks to equip students with the essential knowledge and skills to design, develop, and implement AI systems across various high-demand sectors. The core curriculum is designed to provide in-depth understanding of fundamental AI concepts, forming a solid foundation for both theoretical and practical aspects of artificial intelligence.

Students in this program concentrate in machine learning, with coursework provided by the [Khoury College of Computer Sciences](#). The goal of the machine learning concentration is to provide students with practical, hands-on experience in designing, implementing, and optimizing machine learning models for real-world applications. The program aims to equip students to pursue roles that leverage AI to drive innovation and efficiency in a wide variety of industries and domains.

In this program, students are admitted to the [Khoury College of Computer Sciences](#) and their degree is awarded by that [college](#). [Students will follow all policies associated with the Khoury College of Computer Sciences.](#)

Program Requirements

Beginning with students admitted in the fall of 2026, all students pursuing on-ground master's degree programs must complete a university-level experiential learning requirement. This requirement may be fulfilled through the curriculum, co-op, or other work- or industry-integrated learning experiences.

Complete all courses and requirements listed below unless otherwise indicated.

Align Bridge Coursework

Students are required to complete two or more of the following bridge courses, to be determined by faculty mentor.

A grade of B or higher is required in each of the following:

Code	Title	Hours
Fundamentals		
CS 5001 and CS 5003	Intensive Foundations of Computer Science and Recitation for CS 5001	4
Discrete Structures		
CS 5002	Discrete Structures	4
Object-Oriented Design		
CS 5004 and CS 5005	Object-Oriented Design and Recitation for CS 5004	4
Additional Align Courses		
CS 5008 and CS 5009	Data Structures, Algorithms, and Their Applications within Computer Systems and Recitation for CS 5008	4

Core Requirements

A cumulative GPA of 3.000 or higher is required in the following:

Code	Title	Hours
CS 5100	Foundations of Artificial Intelligence	4
CS 5130 and CS 5131	Applied Programming and Data Processing for AI and Recitation for CS 5130	4
DADS 5200 or DS 5020	Mathematics for Machine Learning Introduction to Linear Algebra and Probability for Data Science	4
DADS 7275 or EECE 5644	Machine Learning and Data Analytics Introduction to Machine Learning and Pattern Recognition	4

Concentration

- Machine Learning (p. 2)—Khoury College of Computer Sciences

Program Credit/GPA Requirements

36-44 total semester hours required

Minimum 3.000 GPA required

MACHINE LEARNING CONCENTRATION—KHOURY COLLEGE OF COMPUTER SCIENCES

Code	Title	Hours
CS 5800	Algorithms	4
Complete 4 semester hours from the following:		4
CS 5180	Reinforcement Learning and Sequential Decision Making	
CS 5330	Pattern Recognition and Computer Vision	
CS 6120	Natural Language Processing	
CS 6200	Information Retrieval	
CS 6220	Data Mining Techniques	
CS 7140	Advanced Machine Learning	
CS 7150	Deep Learning	
CS 7180	Special Topics in Artificial Intelligence	
Capstone		
Complete 4 semester hours from the following:		4
CS 6170	AI Capstone	
CS 8674	Master's Project	
Optional Co-op		
CS 6964	Co-op Work Experience	0
or CS 6954	Co-op Work Experience - Half-Time	
or CS 6955	Co-op Work Experience Abroad - Half-Time	
or CS 6965	Co-op Work Experience Abroad	