



STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: AI for Computer Vision
Course Number: AIN212

Required Materials

Textbook(s): None
Required Readings: None
Additional Materials: None

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

Week	Chapter/Topic/Lab
Week 1	Topic: Introduction to Computer Vision <ul style="list-style-type: none"> • Week 1 Assignment, Week 1 Quiz
Week 2	Topic: Math for Computer Vision <ul style="list-style-type: none"> • Week 2 Assignment, Week 2 Quiz
Week 3	Topic: Data Acquisition <ul style="list-style-type: none"> • Week 3 Assignment, Week 3 Quiz
Week 4	Topic: Data Exploration Part 1 <ul style="list-style-type: none"> • Week 4 Assignment, Week 4 Quiz
Week 5	Topic: Data Exploration Part 2 <ul style="list-style-type: none"> • Week 5 Assignment, Week 5 Quiz
Week 6	Topic: Introduction to CNN <ul style="list-style-type: none"> • Week 6 Assignment, Week 6 Quiz
Week 7	Topic: Building Blocks of CNN <ul style="list-style-type: none"> • Week 7 Assignment, Week 7 Quiz
Week 8	Topic: Transfer Learning <ul style="list-style-type: none"> • Week 8 Assignment, Week 8 Quiz
Week 9	Topic: OpenCV <ul style="list-style-type: none"> • Midterm, OpenCV Discussion Forum
Week 10	Topic: YOLO <ul style="list-style-type: none"> • Week 10 Assignment, Week 10 Quiz

Week	Chapter/Topic/Lab
Week 11	Topic: TensorFlow and Keras <ul style="list-style-type: none">• Week 11 Assignment, Week 11 Quiz
Week 12	Topic: Generative Adversarial Networks <ul style="list-style-type: none">• Week 12 Assignment, Week 12 Quiz
Week 13	Topic: OpenVINO Toolkit <ul style="list-style-type: none">• Week 12 Assignment, Week 13 Quiz
Week 14	Topic: Explainable AI <ul style="list-style-type: none">• Week 13 Assignment, Week 14 Quiz
Week 15	Topic: Deploying Computer Vision Applications <ul style="list-style-type: none">• Week 15 Assignment, Week 15 Quiz
Week 16	Final Exam