

2024 SPRING QUARTER

Here is to certify that Shijie Ruan has attended the course: Machine Learning for Computer Vision in the Innovative Talents Science Training Program from March 8th, to May 26th, 2024.

OFFICIAL TRANSCRIPT

Program	Professor	Class Period	Grade
Machine Learning for Computer Vision	Jens Rittscher	03/08/2024~05/26/2024	55.10

The curriculum design of the course focuses on drawing lessons from the educational concepts of both General Education and Research-Based Learning of world-class universities.



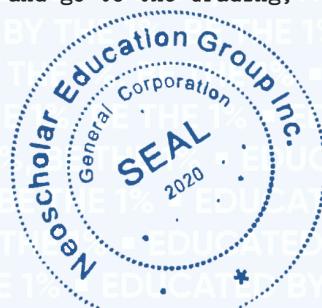
Professor: Jens Rittscher
Home Institution: University of Oxford

GRADE	EQUIVALENT PERCENTAGES	GRADE	EQUIVALENT PERCENTAGES
A+	90-100	C+	67-69
A	85-89	C	63-66
A-	80-84	C-	60-62
B+	77-79	D+	57-59
B	73-76	D	53-56
B-	70-72	D-	50-52

Other Grading Information: Nonacademic Credit=Attended, Audited.

For more information visit ke.neoscholar.com/student/#/passport/login and go to the Grading, Credits and Transcripts page in the Student Services Section.

Please note: The course syllabus and outlines are strictly in consistent with professor's home institutions. All lectures and readings are in English and all students works are also performed in English. Academy consistency is therefore maintained in accordance with the academic requirements at their respective colleges.



ISSUED TO:

Name: Shijie Ruan

Student ID: 2023115871*

Class Period: 48 class hours

*Transcript valid only if bearing the Professor's Signature.

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Machine Learning for Computer Vision

Basic Information

Course Title	Machine Learning for Computer Vision
Instructor	Jens Rittscher, Professor of Engineering Science, University of Oxford
Prerequisites	Python
Required Text & Tools	In each week the lectures will be complemented by a set of Python Jupyter notebooks containing sample code for key algorithms that were covered. References to relevant books and research articles will be provided for further reading.
Grading Criteria	Exam: 50% Homework: 40% Class Participation: 10%
Course Key Words	Image Formation, Image Processing, Edge Detection, Image Segmentation, Machine Learning, Object Detection, Deep Learning Visual Motion Analysis

Schedule

No.	Topics
Lecture 1	Introduction & background
Lecture 2	Image segmentation
Lecture 3	Image features & registration
Lecture 4	Machine learning concepts
Lecture 5	Object detection & classification
Lecture 6	Introduction to deep learning & object detection
Lecture 7	Segmentation and image generation
Lecture 8	Advanced topics in deep learning
Lecture 9	Visual motion and tracking
Lecture 10	Research talk: Overview of research topic in biomedical image analysis. Review of important topics in preparation for the final exam.