

# DEEP LEARNING FOR AI AND COMPUTER VISION

JULY 19–23, 2021 | Instructors: Antonio Torralba, Phillip Isola

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:00 am	<b>L1</b> Introduction to computer vision (Torralba)	<b>L5</b> Neural networks (Isola)	<b>L9</b> Multiview geometry (Torralba)	<b>L13</b> People understanding (Torralba)	<b>L17</b> Vision for embodied agents (Isola)
10:00 am	<b>L2</b> Cameras and image formation (Torralba)	<b>L6</b> Filters and CNNs (Torralba)	<b>L10</b> 3D deep learning (Torralba)	<b>L14</b> Vision and language (Torralba)	<b>L18</b> Modern computer vision in industry: self-driving, medical imaging, and social networks (Torralba)
11:00 am	BREAK				
11:15 am	<b>L3</b> Introduction to machine learning (Isola)	<b>L7</b> Stochastic gradient descent (Torralba)	<b>L11</b> Scene understanding part 1 (Isola)	<b>L15</b> Image synthesis and generative models (Isola)	<b>L19</b> Datasets, bias, and adaptation, robustness and security (Torralba)
12:15 pm	LUNCH				
1:30 pm	<b>L4</b> The problem of generalization (Isola)	<b>L8</b> Temporal processing and RNNs (Isola)	<b>L12</b> Scene understanding part 1 (Isola)	<b>L16</b> AR/VR and graphics applications (Isola)	<b>L20</b> Deepfakes and their antidotes (Isola)
2:45 pm	BREAK				
3:00 pm	Lab on Pytorch	Lab on using modern computing infrastructure	Lab on scene understanding	Lab on generative adversarial networks	Lab on your own work (bring your project and we will help you to get started) Closing remarks
5:00 pm	ADJOURN				