INDEX

adobe photoshop, 70 API, 93, 116, 120 AR display, 26 ASL, 113 augmented reality, 2, 21, 65– 66, 81–82, 85 Azure, 15

BSL, 113

CNNs, 13 computer vision, 8–12, 90 computer-aided design, 22 *Congkak*, 51–56, 58–64 cultural heritage, 38

D415, 15 D435, 15

ESL, 113–14 extended reality, 1, 7, 52, 121

feature tracking, 27, 67 fist gesture, 103, 106, 110 FoV, 15, 16 gesture recognition, 1-2, 13, 40,72 glove, 10, 14 haptic feedback, 10, 17, 19, 56, 116 HMD, 81 kinect, 11–12, 14–15, 82, 85 Leap Motion, 16, 25, 38, 51-52, 54-56, 66, 68-69, 71-72, 74, 78, 82, 85, 91, 98, 114, 116, 119, 120–22 Malaysian Sign Language. See MySL MeshCNN, 13 MR, 2, 17 MySL, 111–16, 122 paddle-based, 18 physically based shading, 44 pinch gesture, 5, 30–31, 70,

73-75, 77, 84, 93, 107-09

pinching, 5–6, 29–31, 65, 69, 106, 110
PointNet, 13
Pulut Panggang, 38, 41, 44

real hand, 3, 21 rigid body, 104–05

SDK, 26, 34, 56, 66, 69–70, 85, 90, 93, 95, 116, 119–21
SIFT, 13
skeletal tracking, 15
software development kit. *See* SDK
spatial mapping, 67
SURF, 13
swipe gesture, 5, 69–70, 73, 75, 84, 106
swipe left, 5, 41, 71
swiping, 6, 9, 17, 65, 69, 83, 103 tapping, 6, 17, 32, 64, 73, 77, 79, 81, 83, 85, 88, 92, 102– 04, 106, 110
Time-of-Flight. See ToF
ToF, 12, 15

Unity 3D, 26, 59, 64, 68, 71

virtual reality, 2, 13, 65 voxel-based, 21–22, 28, 34 vuforia, 26–27, 34, 70

wand-like, 16 wiggle gesture, 106

XR, 1–3, 5, 7, 9, 16–18, 52–53, 64, 99, 121

ZapBox, 17