

# UI/UX

Din perspectiva unui inginer software  
[t.cioaca@gmail.com](mailto:t.cioaca@gmail.com)



UNIVERSITY OF  
**BUCHAREST**  
— VIRTUTE ET SAPIENTIA —

# UI/UX de la 2D la 3D - roboti antropomorfici

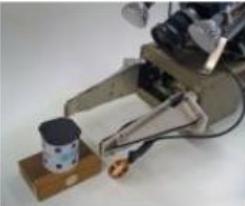


Development of a mobile dual-arm robotic system  
capable of flexible manipulation of varying products

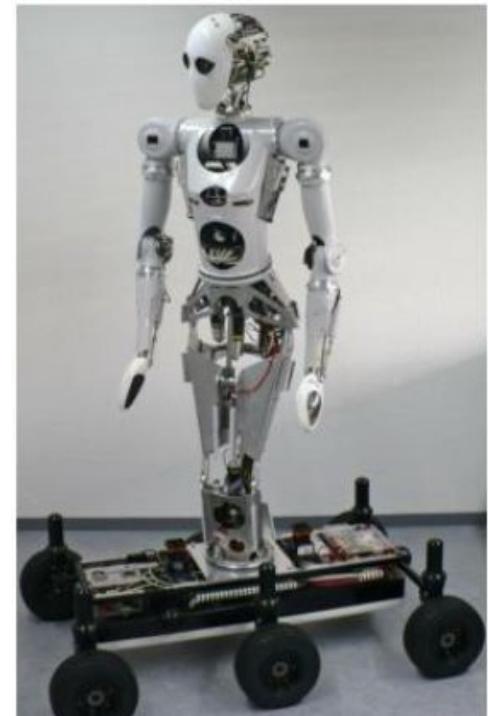
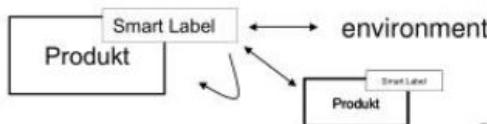
1. System prototype



RFID reader/writer

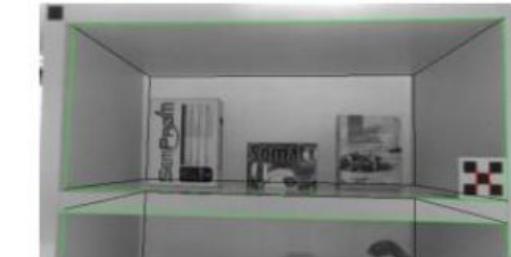


AILA

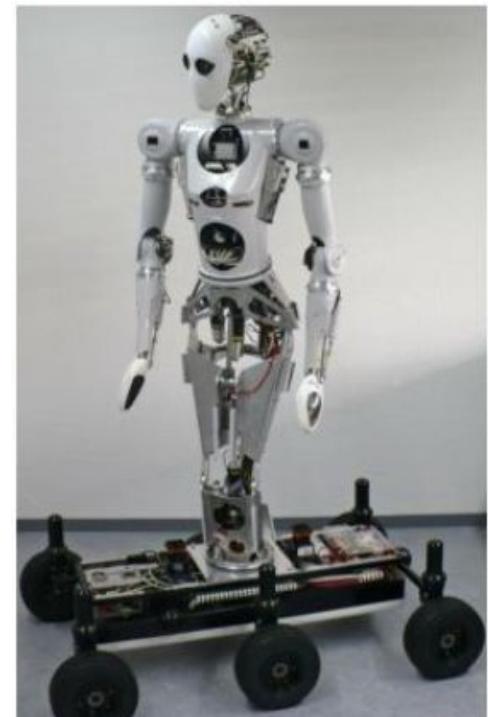
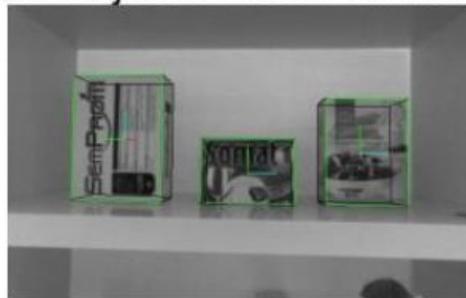


# UI/UX de la 2D la 3D - roboti antropomorfici

- Object Recognition based on SIFT Feature Matching
- Marker and Shelf Recognition

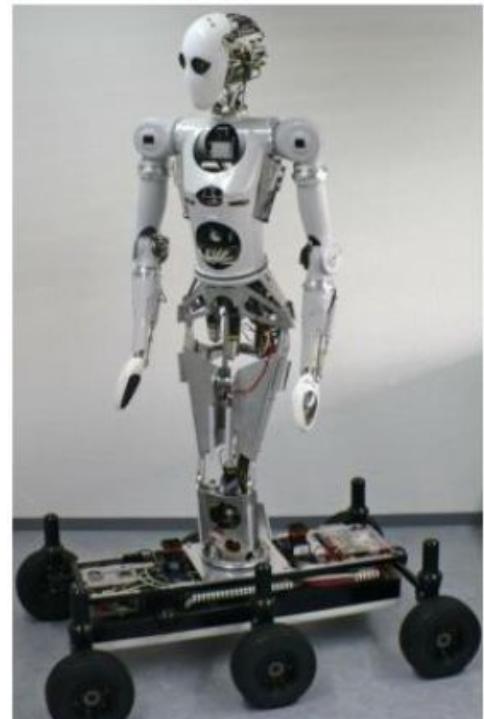
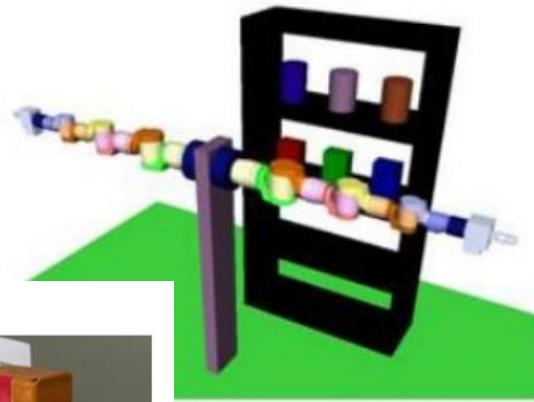


- 3D Object's Pose Estimation



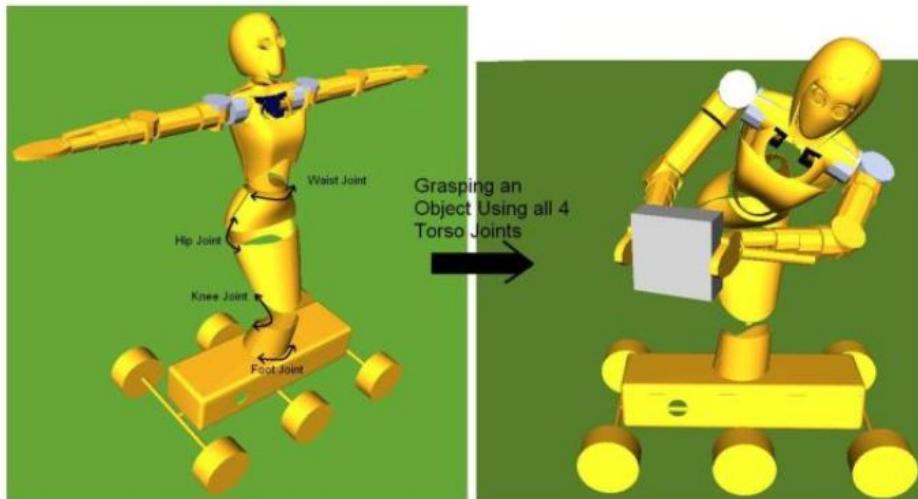
# UI/UX de la 2D la 3D - roboti antropomorfici

- Simultaneous dual-arm trajectory planning
  - Free and cluttered environments

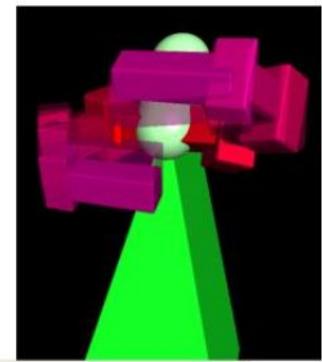
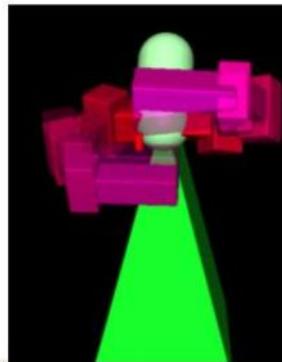


<https://www.slideserve.com/kamuzu/projekt>

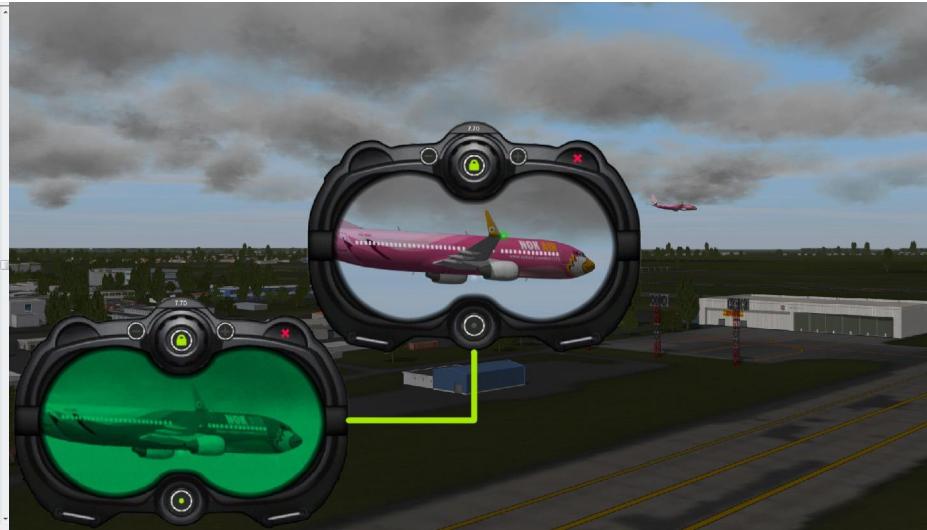
# UI/UX de la 2D la 3D - roboti antropomorfici



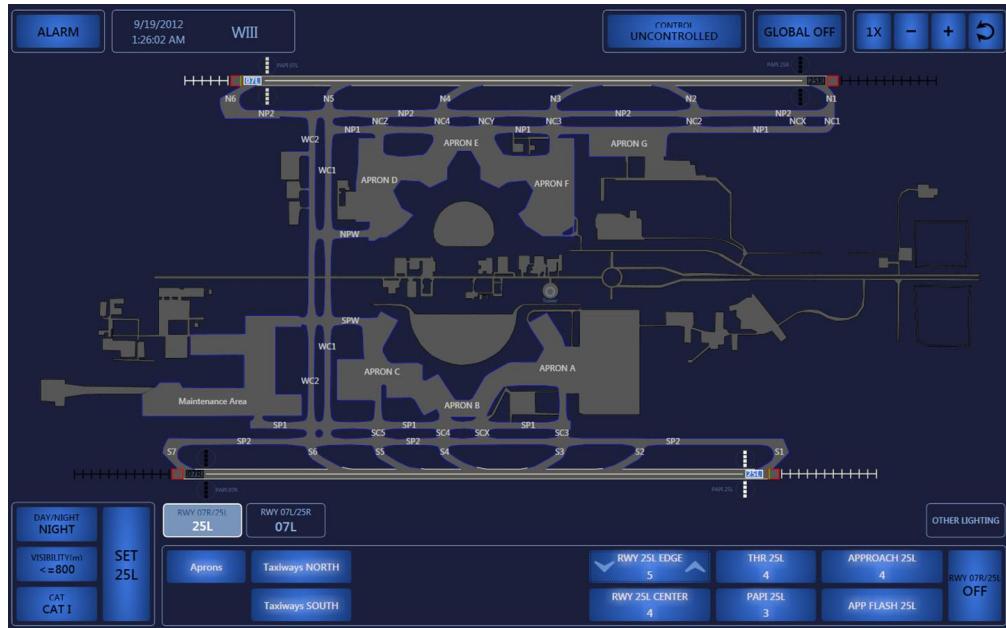
- Real-time self-collision software checks that no collision occurs between body parts
  - Takes into account deceleration and braking time
  - Submitted as DFKI Patent



# UI/UX de la 2D la 3D - simulator controlor trafic aerian

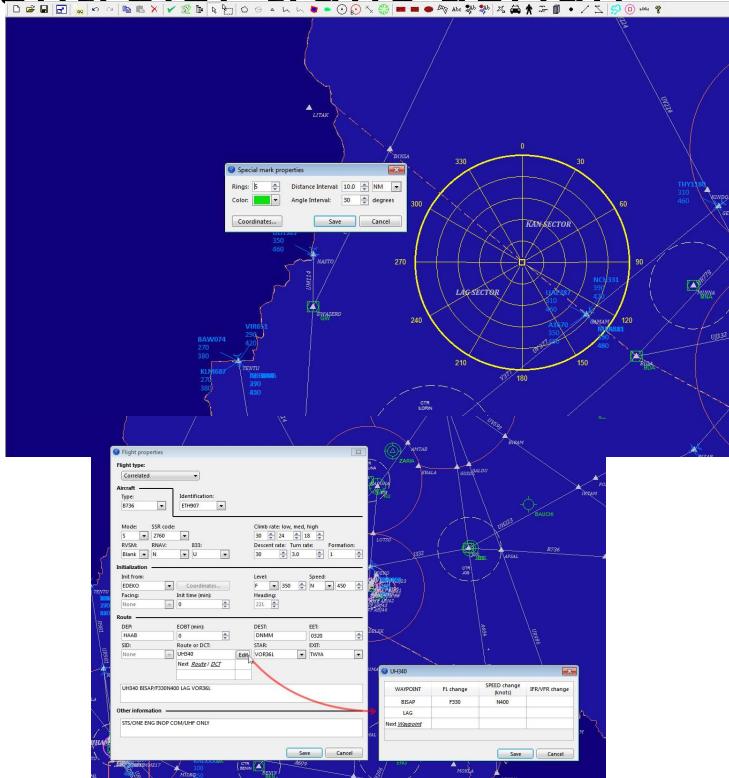
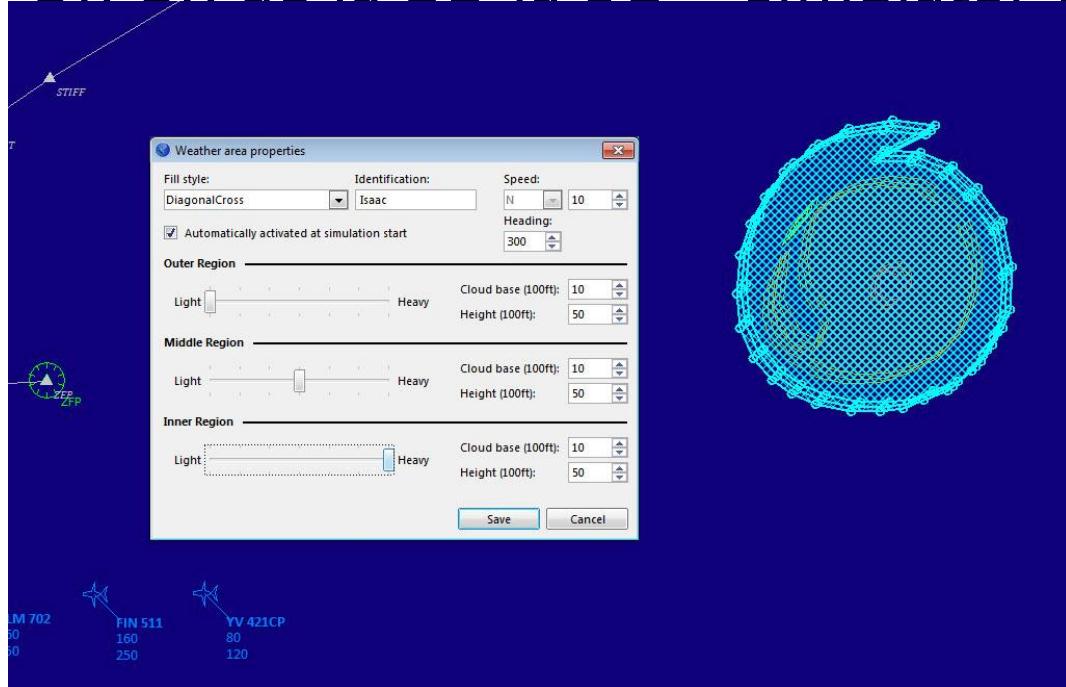


# UI/UX de la 2D la 3D - simulator controlor trafic aerian

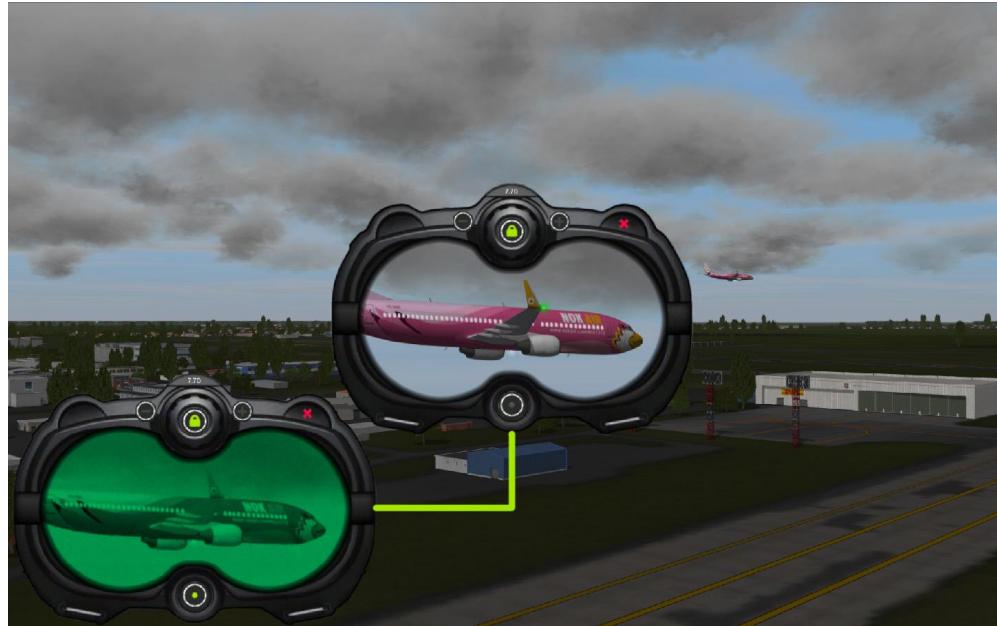


ARTMACS - Tower and Radar Air Traffic Control (ATC) simulator ([canadiandatasoft.com](http://canadiandatasoft.com)) (Copyright)

# UI/UX de la 2D la 3D - simulator controlor trafic aerian



# UI/UX de la 2D la 3D - simulator controlor trafic aerian



ARTMACS - Tower and Radar Air Traffic Control (ATC) simulator ([canadiandatasoft.com](http://canadiandatasoft.com)) (Copyright)

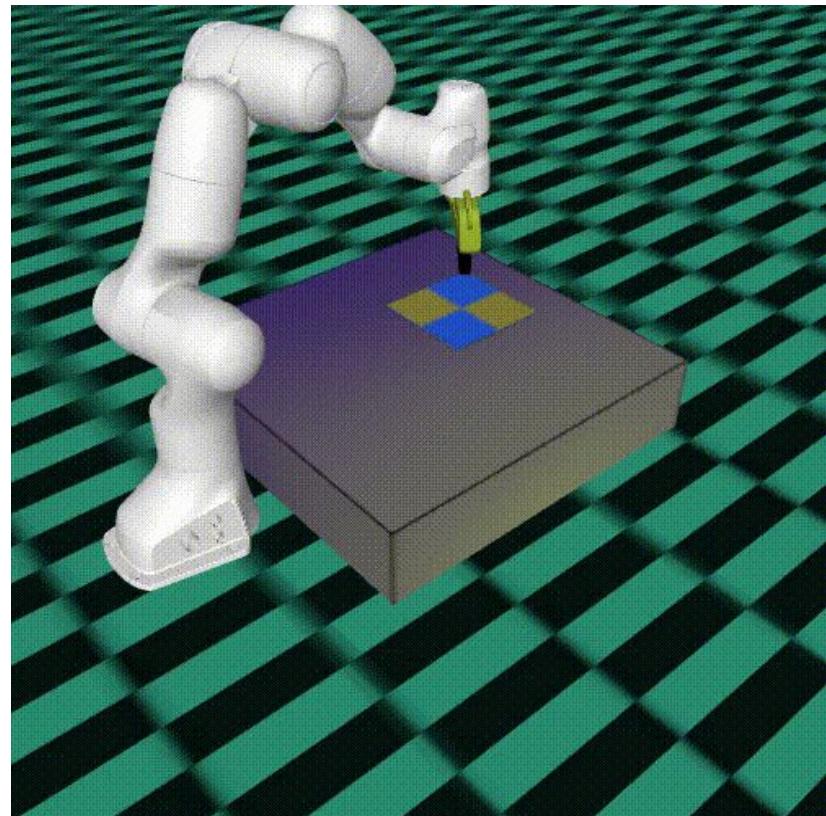
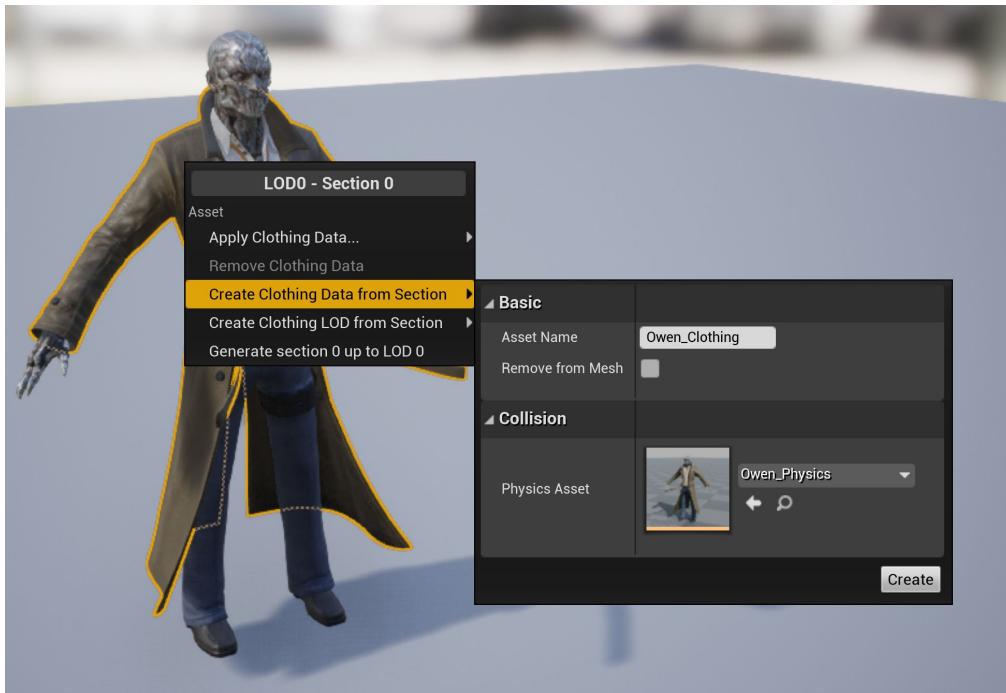
# UI/UX de la 2D la 3D - industria de divertiment



# UI/UX de la 2D la 3D - industria de divertissement



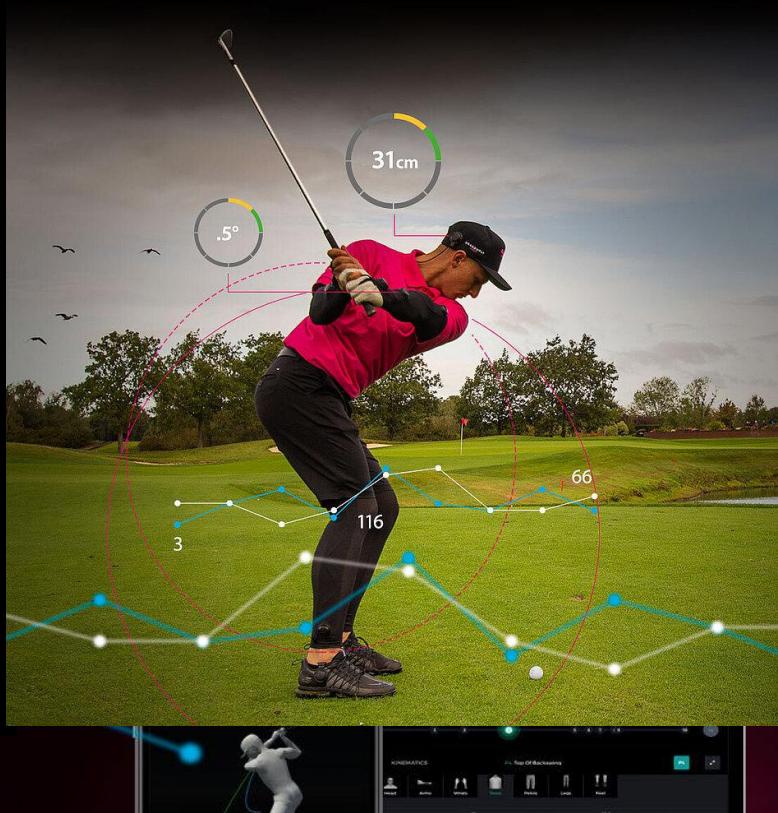
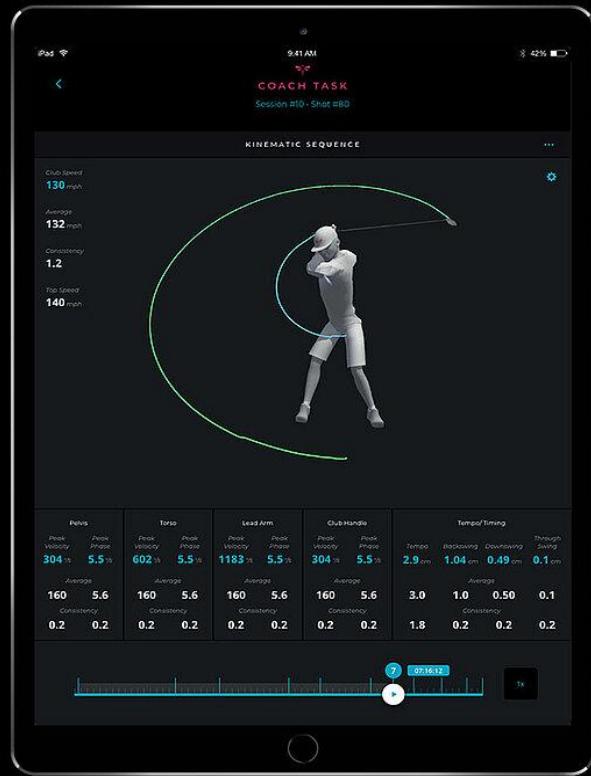
# UI/UX de la 2D la 3D - industria de divertismen



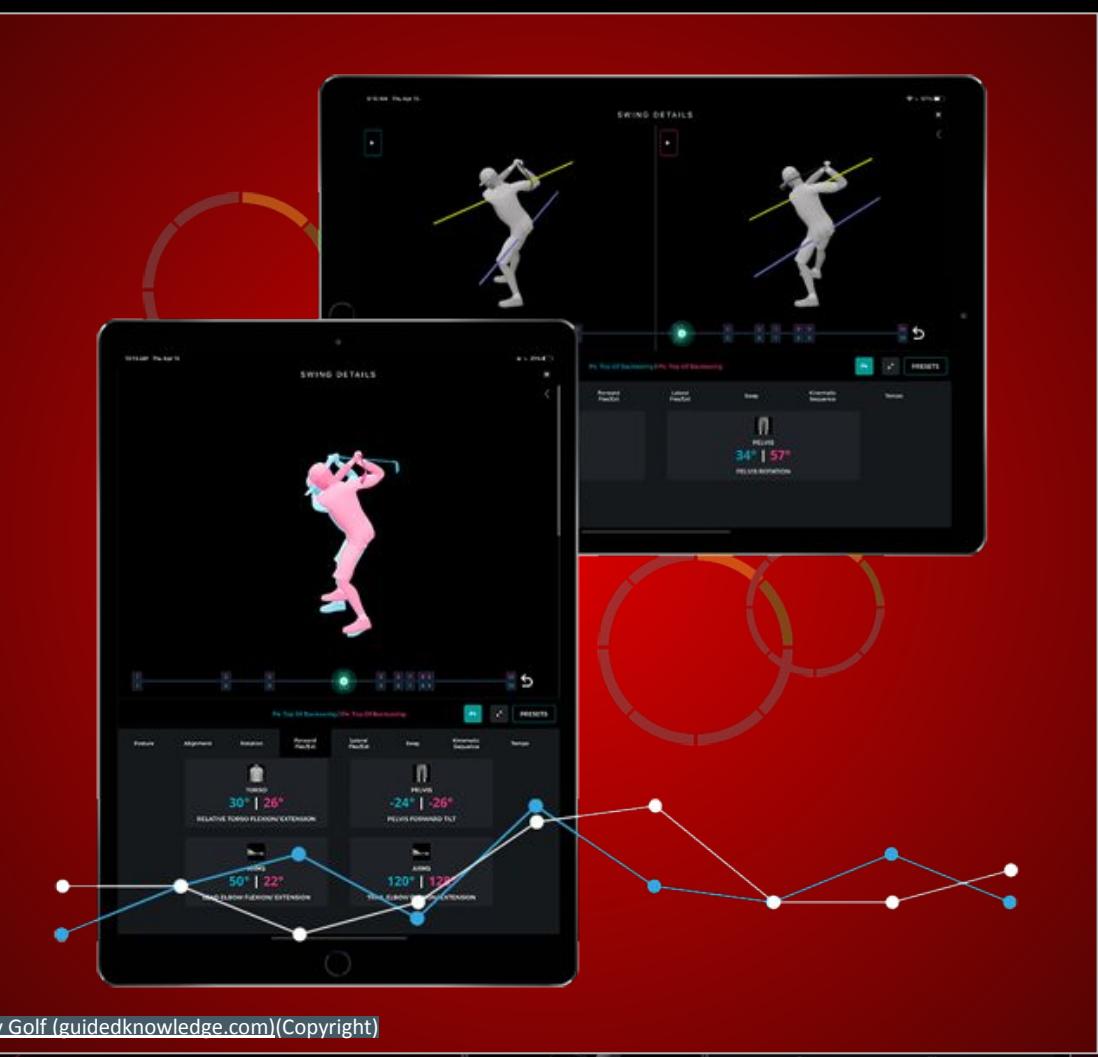
# UI/UX de la 2D la 3D - biomecanica



# UI/UX de la 2D la 3D - biomecanica



# UI/UX de la 2D la 3D -



Dragonfly Golf is the next generation of 3D swing analysis wearables - Dragonfly Golf ([guidedknowledge.com](http://guidedknowledge.com)) (Copyright)

# UI/UX de la 2D la 3D - dispecerate situatii de urgență



# UI/UX de la 2D la 3D - dispecerate situatii de urgență



GIS



EIBA

BF Würzburg		Stadtfeuerwache	Grenzfeuerwache	Zentralfeuerwache
MU 13-1	MU 19-1	MU 1-AB-1	MU 2-AB-1	MU 4-AB-1
MU 13-2	MU 19-2	MU AB-G	MU 1-AB-1	MU 4-AB-1
MU 13-3	MU 19-3	MU AB-Melde	MU 1-AB-1	MU 4-AB-1
MU 13-4	MU 19-4	MU AB-MuKran	MU 2-AB-1	MU 3-AB-1
MU 13-5	MU 19-5	MU AB-SL	MU 1-AB-1	MU 3-AB-1
MU 13-6	MU 19-6	MU 2-AB-1	MU 3-AB-1	MU 4-AB-1
MU 13-7	MU 19-7	MU 4-AB-1	MU 5-AB-1	MU 6-AB-1
MU 13-8	MU 19-8	MU Feuerwache	MU 6-AB-1	MU 7-AB-1
MU 13-9	MU 19-9	MU Feuerwehr	MU 7-AB-1	MU 8-AB-1
MU 13-10	MU 19-10	MU Feuerwehr	MU 8-AB-1	MU 9-AB-1
MU 13-11	MU 19-11	MU Feuerwehr	MU 9-AB-1	MU 10-AB-1
MU 13-12	MU 19-12	MU Feuerwehr	MU 10-AB-1	MU 11-AB-1
MU 13-13	MU 19-13	MU Feuerwehr	MU 11-AB-1	MU 12-AB-1
MU 13-14	MU 19-14	MU Feuerwehr	MU 12-AB-1	MU 13-AB-1
MU 13-15	MU 19-15	MU Feuerwehr	MU 13-AB-1	MU 14-AB-1
MU 13-16	MU 19-16	MU Feuerwehr	MU 14-AB-1	MU 15-AB-1
MU 13-17	MU 19-17	MU Feuerwehr	MU 15-AB-1	MU 16-AB-1
MU 13-18	MU 19-18	MU Feuerwehr	MU 16-AB-1	MU 17-AB-1
MU 13-19	MU 19-19	MU Feuerwehr	MU 17-AB-1	MU 18-AB-1
MU 13-20	MU 19-20	MU Feuerwehr	MU 18-AB-1	MU 19-AB-1
MU 13-21	MU 19-21	MU Feuerwehr	MU 19-AB-1	MU 20-AB-1
MU 13-22	MU 19-22	MU Feuerwehr	MU 20-AB-1	MU 21-AB-1
MU 13-23	MU 19-23	MU Feuerwehr	MU 21-AB-1	MU 22-AB-1
MU 13-24	MU 19-24	MU Feuerwehr	MU 22-AB-1	MU 23-AB-1
MU 13-25	MU 19-25	MU Feuerwehr	MU 23-AB-1	MU 24-AB-1
MU 13-26	MU 19-26	MU Feuerwehr	MU 24-AB-1	MU 25-AB-1
MU 13-27	MU 19-27	MU Feuerwehr	MU 25-AB-1	MU 26-AB-1
MU 13-28	MU 19-28	MU Feuerwehr	MU 26-AB-1	MU 27-AB-1
MU 13-29	MU 19-29	MU Feuerwehr	MU 27-AB-1	MU 28-AB-1
MU 13-30	MU 19-30	MU Feuerwehr	MU 28-AB-1	MU 29-AB-1
MU 13-31	MU 19-31	MU Feuerwehr	MU 29-AB-1	MU 30-AB-1
MU 13-32	MU 19-32	MU Feuerwehr	MU 30-AB-1	MU 31-AB-1
MU 13-33	MU 19-33	MU Feuerwehr	MU 31-AB-1	MU 32-AB-1
MU 13-34	MU 19-34	MU Feuerwehr	MU 32-AB-1	MU 33-AB-1
MU 13-35	MU 19-35	MU Feuerwehr	MU 33-AB-1	MU 34-AB-1
MU 13-36	MU 19-36	MU Feuerwehr	MU 34-AB-1	MU 35-AB-1
MU 13-37	MU 19-37	MU Feuerwehr	MU 35-AB-1	MU 36-AB-1
MU 13-38	MU 19-38	MU Feuerwehr	MU 36-AB-1	MU 37-AB-1
MU 13-39	MU 19-39	MU Feuerwehr	MU 37-AB-1	MU 38-AB-1
MU 13-40	MU 19-40	MU Feuerwehr	MU 38-AB-1	MU 39-AB-1
MU 13-41	MU 19-41	MU Feuerwehr	MU 39-AB-1	MU 40-AB-1
MU 13-42	MU 19-42	MU Feuerwehr	MU 40-AB-1	MU 41-AB-1
MU 13-43	MU 19-43	MU Feuerwehr	MU 41-AB-1	MU 42-AB-1
MU 13-44	MU 19-44	MU Feuerwehr	MU 42-AB-1	MU 43-AB-1
MU 13-45	MU 19-45	MU Feuerwehr	MU 43-AB-1	MU 44-AB-1
MU 13-46	MU 19-46	MU Feuerwehr	MU 44-AB-1	MU 45-AB-1
MU 13-47	MU 19-47	MU Feuerwehr	MU 45-AB-1	MU 46-AB-1
MU 13-48	MU 19-48	MU Feuerwehr	MU 46-AB-1	MU 47-AB-1
MU 13-49	MU 19-49	MU Feuerwehr	MU 47-AB-1	MU 48-AB-1
MU 13-50	MU 19-50	MU Feuerwehr	MU 48-AB-1	MU 49-AB-1
MU 13-51	MU 19-51	MU Feuerwehr	MU 49-AB-1	MU 50-AB-1
MU 13-52	MU 19-52	MU Feuerwehr	MU 50-AB-1	MU 51-AB-1
MU 13-53	MU 19-53	MU Feuerwehr	MU 51-AB-1	MU 52-AB-1
MU 13-54	MU 19-54	MU Feuerwehr	MU 52-AB-1	MU 53-AB-1
MU 13-55	MU 19-55	MU Feuerwehr	MU 53-AB-1	MU 54-AB-1
MU 13-56	MU 19-56	MU Feuerwehr	MU 54-AB-1	MU 55-AB-1
MU 13-57	MU 19-57	MU Feuerwehr	MU 55-AB-1	MU 56-AB-1
MU 13-58	MU 19-58	MU Feuerwehr	MU 56-AB-1	MU 57-AB-1
MU 13-59	MU 19-59	MU Feuerwehr	MU 57-AB-1	MU 58-AB-1
MU 13-60	MU 19-60	MU Feuerwehr	MU 58-AB-1	MU 59-AB-1
MU 13-61	MU 19-61	MU Feuerwehr	MU 59-AB-1	MU 60-AB-1
MU 13-62	MU 19-62	MU Feuerwehr	MU 60-AB-1	MU 61-AB-1
MU 13-63	MU 19-63	MU Feuerwehr	MU 61-AB-1	MU 62-AB-1
MU 13-64	MU 19-64	MU Feuerwehr	MU 62-AB-1	MU 63-AB-1
MU 13-65	MU 19-65	MU Feuerwehr	MU 63-AB-1	MU 64-AB-1
MU 13-66	MU 19-66	MU Feuerwehr	MU 64-AB-1	MU 65-AB-1
MU 13-67	MU 19-67	MU Feuerwehr	MU 65-AB-1	MU 66-AB-1
MU 13-68	MU 19-68	MU Feuerwehr	MU 66-AB-1	MU 67-AB-1
MU 13-69	MU 19-69	MU Feuerwehr	MU 67-AB-1	MU 68-AB-1
MU 13-70	MU 19-70	MU Feuerwehr	MU 68-AB-1	MU 69-AB-1
MU 13-71	MU 19-71	MU Feuerwehr	MU 69-AB-1	MU 70-AB-1
MU 13-72	MU 19-72	MU Feuerwehr	MU 70-AB-1	MU 71-AB-1
MU 13-73	MU 19-73	MU Feuerwehr	MU 71-AB-1	MU 72-AB-1
MU 13-74	MU 19-74	MU Feuerwehr	MU 72-AB-1	MU 73-AB-1
MU 13-75	MU 19-75	MU Feuerwehr	MU 73-AB-1	MU 74-AB-1
MU 13-76	MU 19-76	MU Feuerwehr	MU 74-AB-1	MU 75-AB-1
MU 13-77	MU 19-77	MU Feuerwehr	MU 75-AB-1	MU 76-AB-1
MU 13-78	MU 19-78	MU Feuerwehr	MU 76-AB-1	MU 77-AB-1
MU 13-79	MU 19-79	MU Feuerwehr	MU 77-AB-1	MU 78-AB-1
MU 13-80	MU 19-80	MU Feuerwehr	MU 78-AB-1	MU 79-AB-1
MU 13-81	MU 19-81	MU Feuerwehr	MU 79-AB-1	MU 80-AB-1
MU 13-82	MU 19-82	MU Feuerwehr	MU 80-AB-1	MU 81-AB-1
MU 13-83	MU 19-83	MU Feuerwehr	MU 81-AB-1	MU 82-AB-1
MU 13-84	MU 19-84	MU Feuerwehr	MU 82-AB-1	MU 83-AB-1
MU 13-85	MU 19-85	MU Feuerwehr	MU 83-AB-1	MU 84-AB-1
MU 13-86	MU 19-86	MU Feuerwehr	MU 84-AB-1	MU 85-AB-1
MU 13-87	MU 19-87	MU Feuerwehr	MU 85-AB-1	MU 86-AB-1
MU 13-88	MU 19-88	MU Feuerwehr	MU 86-AB-1	MU 87-AB-1
MU 13-89	MU 19-89	MU Feuerwehr	MU 87-AB-1	MU 88-AB-1
MU 13-90	MU 19-90	MU Feuerwehr	MU 88-AB-1	MU 89-AB-1
MU 13-91	MU 19-91	MU Feuerwehr	MU 89-AB-1	MU 90-AB-1
MU 13-92	MU 19-92	MU Feuerwehr	MU 90-AB-1	MU 91-AB-1
MU 13-93	MU 19-93	MU Feuerwehr	MU 91-AB-1	MU 92-AB-1
MU 13-94	MU 19-94	MU Feuerwehr	MU 92-AB-1	MU 93-AB-1
MU 13-95	MU 19-95	MU Feuerwehr	MU 93-AB-1	MU 94-AB-1
MU 13-96	MU 19-96	MU Feuerwehr	MU 94-AB-1	MU 95-AB-1
MU 13-97	MU 19-97	MU Feuerwehr	MU 95-AB-1	MU 96-AB-1
MU 13-98	MU 19-98	MU Feuerwehr	MU 96-AB-1	MU 97-AB-1
MU 13-99	MU 19-99	MU Feuerwehr	MU 97-AB-1	MU 98-AB-1
MU 13-100	MU 19-100	MU Feuerwehr	MU 98-AB-1	MU 99-AB-1
MU 13-101	MU 19-101	MU Feuerwehr	MU 99-AB-1	MU 100-AB-1
MU 13-102	MU 19-102	MU Feuerwehr	MU 100-AB-1	MU 101-AB-1
MU 13-103	MU 19-103	MU Feuerwehr	MU 101-AB-1	MU 102-AB-1
MU 13-104	MU 19-104	MU Feuerwehr	MU 102-AB-1	MU 103-AB-1
MU 13-105	MU 19-105	MU Feuerwehr	MU 103-AB-1	MU 104-AB-1
MU 13-106	MU 19-106	MU Feuerwehr	MU 104-AB-1	MU 105-AB-1
MU 13-107	MU 19-107	MU Feuerwehr	MU 105-AB-1	MU 106-AB-1
MU 13-108	MU 19-108	MU Feuerwehr	MU 106-AB-1	MU 107-AB-1
MU 13-109	MU 19-109	MU Feuerwehr	MU 107-AB-1	MU 108-AB-1
MU 13-110	MU 19-110	MU Feuerwehr	MU 108-AB-1	MU 109-AB-1
MU 13-111	MU 19-111	MU Feuerwehr	MU 109-AB-1	MU 110-AB-1
MU 13-112	MU 19-112	MU Feuerwehr	MU 110-AB-1	MU 111-AB-1
MU 13-113	MU 19-113	MU Feuerwehr	MU 111-AB-1	MU 112-AB-1
MU 13-114	MU 19-114	MU Feuerwehr	MU 112-AB-1	MU 113-AB-1
MU 13-115	MU 19-115	MU Feuerwehr	MU 113-AB-1	MU 114-AB-1
MU 13-116	MU 19-116	MU Feuerwehr	MU 114-AB-1	MU 115-AB-1
MU 13-117	MU 19-117	MU Feuerwehr	MU 115-AB-1	MU 116-AB-1
MU 13-118	MU 19-118	MU Feuerwehr	MU 116-AB-1	MU 117-AB-1
MU 13-119	MU 19-119	MU Feuerwehr	MU 117-AB-1	MU 118-AB-1
MU 13-120	MU 19-120	MU Feuerwehr	MU 118-AB-1	MU 119-AB-1
MU 13-121	MU 19-121	MU Feuerwehr	MU 119-AB-1	MU 120-AB-1
MU 13-122	MU 19-122	MU Feuerwehr	MU 120-AB-1	MU 121-AB-1
MU 13-123	MU 19-123	MU Feuerwehr	MU 121-AB-1	MU 122-AB-1
MU 13-124	MU 19-124	MU Feuerwehr	MU 122-AB-1	MU 123-AB-1
MU 13-125	MU 19-125	MU Feuerwehr	MU 123-AB-1	MU 124-AB-1
MU 13-126	MU 19-126	MU Feuerwehr	MU 124-AB-1	MU 125-AB-1
MU 13-127	MU 19-127	MU Feuerwehr	MU 125-AB-1	MU 126-AB-1
MU 13-128	MU 19-128	MU Feuerwehr	MU 126-AB-1	MU 127-AB-1
MU 13-129	MU 19-129	MU Feuerwehr	MU 127-AB-1	MU 128-AB-1
MU 13-130	MU 19-130	MU Feuerwehr	MU 128-AB-1	MU 129-AB-1
MU 13-131	MU 19-131	MU Feuerwehr	MU 129-AB-1	MU 130-AB-1
MU 13-132	MU 19-132	MU Feuerwehr	MU 130-AB-1	MU 131-AB-1
MU 13-133	MU 19-133	MU Feuerwehr	MU 131-AB-1	MU 132-AB-1
MU 13-134	MU 19-134	MU Feuerwehr	MU 132-AB-1	MU 133-AB-1
MU 13-135	MU 19-135	MU Feuerwehr	MU 133-AB-1	MU 134-AB-1
MU 13-136	MU 19-136	MU Feuerwehr	MU 134-AB-1	MU 135-AB-1
MU 13-137	MU 19-137	MU Feuerwehr	MU 135-AB-1	MU 136-AB-1
MU 13-138	MU 19-138	MU Feuerwehr	MU 136-AB-1	MU 137-AB-1
MU 13-139	MU 19-139	MU Feuerwehr	MU 137-AB-1	MU 138-AB-1
MU 13-140	MU 19-140	MU Feuerwehr	MU 138-AB-1	MU 139-AB-1
MU 13-141	MU 19-141	MU Feuerwehr	MU 139-AB-1	MU 140-AB-1
MU 13-142	MU 19-142	MU Feuerwehr	MU 140-AB-1	MU 141-AB-1
MU 13-143	MU 19-143	MU Feuerwehr	MU 141-AB-1	MU 142-AB-1
MU 13-144	MU 19-144	MU Feuerwehr	MU 142-AB-1	MU 143-AB-1
MU 13-145	MU 19-145	MU Feuerwehr	MU 143-AB-1	MU 144-AB-1
MU 13-146	MU 19-146	MU Feuerwehr	MU 144-AB-1	MU 145-AB-1
MU 13-147	MU 19-147	MU Feuerwehr	MU 145-AB-1	MU 146-AB-1
MU 13-148	MU 19-148	MU Feuerwehr	MU 146-AB-1	MU 147-AB-1
MU 13-149	MU 19-149	MU Feuerwehr	MU 147-AB-1	MU 148-AB-1
MU 13-150	MU 19-150	MU Feuerwehr	MU 148-AB-1	MU 149-AB-1
MU 13-151	MU 19-151	MU Feuerwehr	MU 149-AB-1	MU 150-AB-1
MU 13-152	MU 19-152	MU Feuerwehr	MU 150-AB-1	MU 151-AB-1
MU 13-153	MU 19-153	MU Feuerwehr	MU 151-AB-1	MU 152-AB-1
MU 13-154	MU 19-154	MU Feuerwehr	MU 152-AB-1	MU 153-AB-1
MU 13-155	MU 19-155	MU Feuerwehr	MU 153-AB-1	MU 154-AB-1
MU 13-156	MU 19-156	MU Feuerwehr	MU 154-AB-1	MU 155-AB-1
MU 13-157	MU 19-157	MU Feuerwehr	MU 155-AB-1	MU 156-AB-1
MU 13-158	MU 19-158	MU Feuerwehr	MU 156-AB-1	MU 157-AB-1
MU 13-159	MU 19-159	MU Feuerwehr	MU 157-AB-1	MU 158-AB-1
MU 13-160	MU 19-160	MU Feuerwehr	MU 158-AB-1	MU 159-AB-1
MU 13-161	MU 19-161	MU Feuerwehr	MU 159-AB-1	MU 160-AB-1
MU 13-162	MU 19-162	MU Feuerwehr	MU 160-AB-1	MU 161-AB-1
MU 13-163	MU 19-163	MU Feuerwehr	MU 161-AB-1	MU 162-AB-1
MU 13-164	MU 19-164	MU Feuerwehr	MU 162-AB-1	MU 163-AB-1
MU 13-165	MU 19-165	MU Feuerwehr	MU 163-AB-1	MU 164-AB-1
MU 13-166	MU 19-166	MU Feuerwehr	MU 164-AB-1	MU 165-AB-1
MU 13-167	MU 19-167	MU Feuerwehr	MU 165-AB-1	MU 166-AB-1
MU 13-168	MU 19-168	MU Feuerwehr	MU 166-AB-1	MU 167-AB-1
MU 13-169	MU 19-169	MU Feuerwehr	MU 167-AB-1	MU 168-AB-1
MU 13-170	MU 19-170	MU Feuerwehr	MU 168-AB-1	MU 169-AB-1
MU 13-171	MU 19-171	MU Feuerwehr	MU 169-AB-1	MU 170-AB-1
MU 13-172	MU 19-172	MU Feuerwehr	MU 170-AB-1	MU 171-AB-1
MU 13-173	MU 19-173	MU Feuerwehr	MU 171-AB-1	MU 172-AB-1
MU 13-174	MU 19-174	MU Feuerwehr	MU 172-AB-1	MU 173-AB-1
MU 13-175	MU 19-175	MU Feuerwehr	MU 173-AB-1	MU 174-AB-1
MU 13-176	MU 19-176	MU Feuerwehr	MU 174-AB-1	MU 175-AB-1
MU 13-177	MU 19-177	MU Feuerwehr	MU 175-AB-1	MU 176-AB-1
MU 13-178	MU 19-178	MU Feuerwehr	MU 176-AB-1	MU 177-AB-1
MU 13-179	MU 19-179	MU Feuerwehr	MU 177-AB-1	MU 178-AB-1

# UI/UX de la 2D la 3D - masini autonome



## LIDAR

- 2 roof-mounted LiDAR sensors
- Overlapping 40° vertical field of view
- Range of 200m
- On average, our LiDAR sensors produce a point cloud with ~ 107,000 points at 10 Hz

## Localization

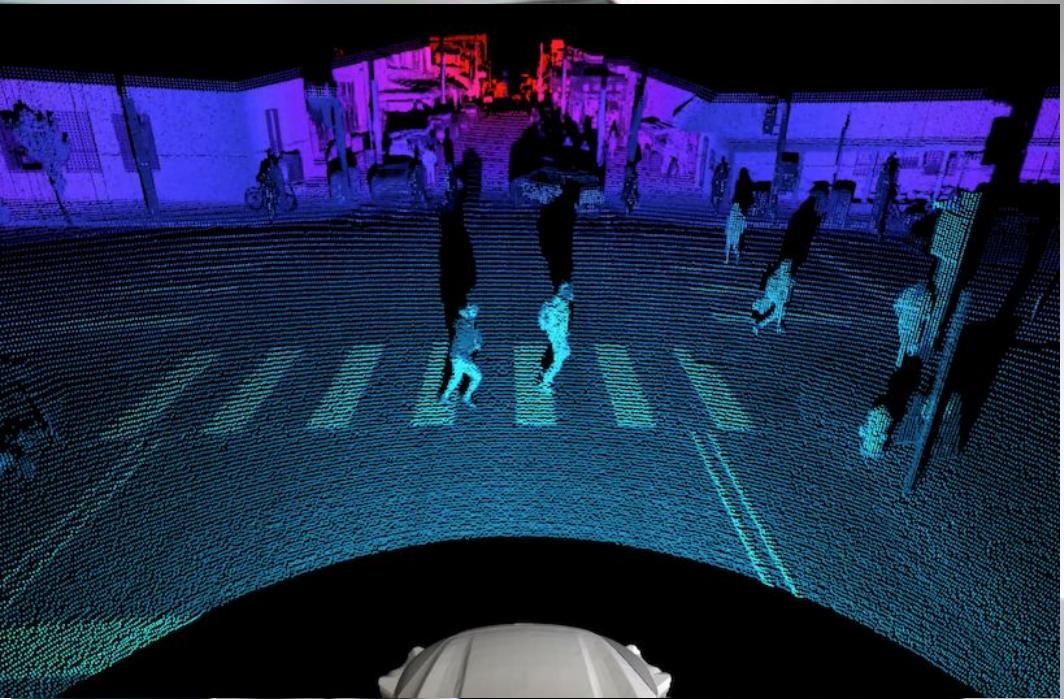
We use a city-specific coordinate system for vehicle localization. We include 6-DOF localization for each timestamp, from a combination of GPS-based and sensor-based localization methods.

## Cameras

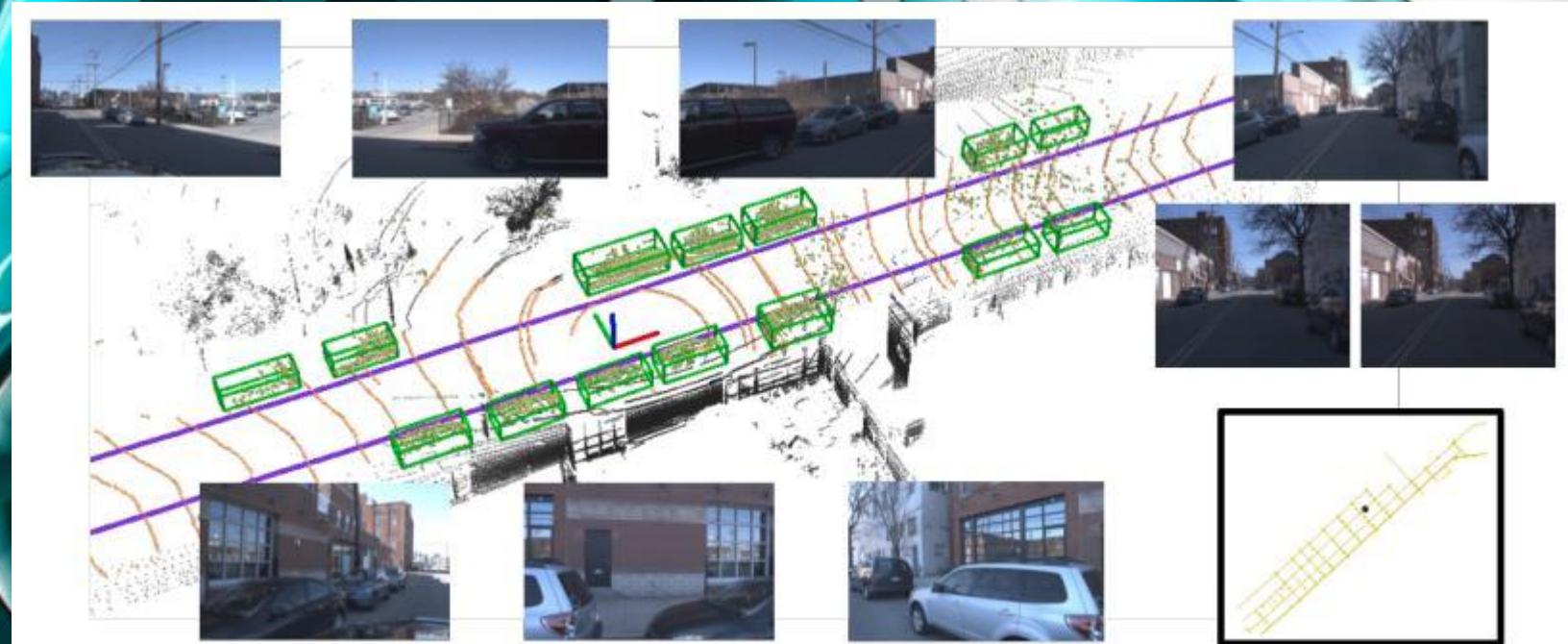
- Seven high-resolution ring cameras (1920 x 1200) recording at 30 Hz with a combined 360° field of view
- Two front-view facing stereo cameras (2056 x 2464) sampled at 5 Hz

## Calibration

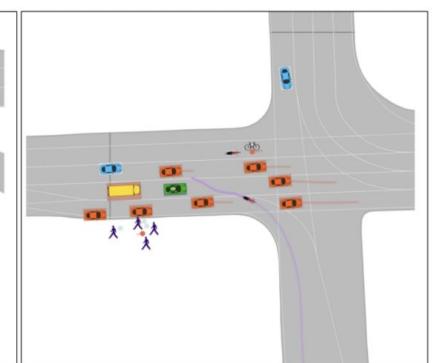
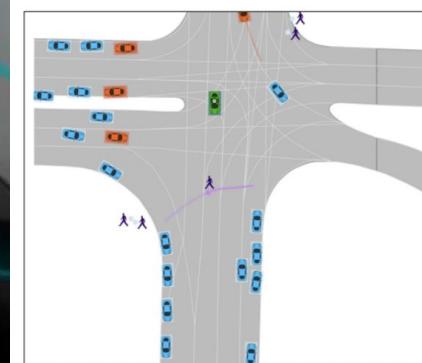
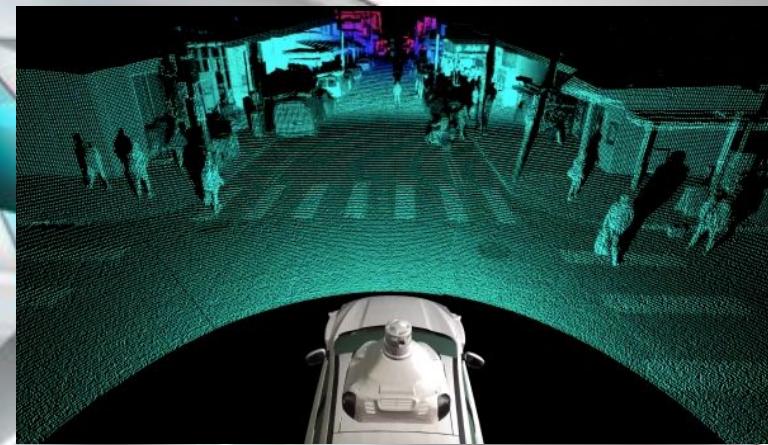
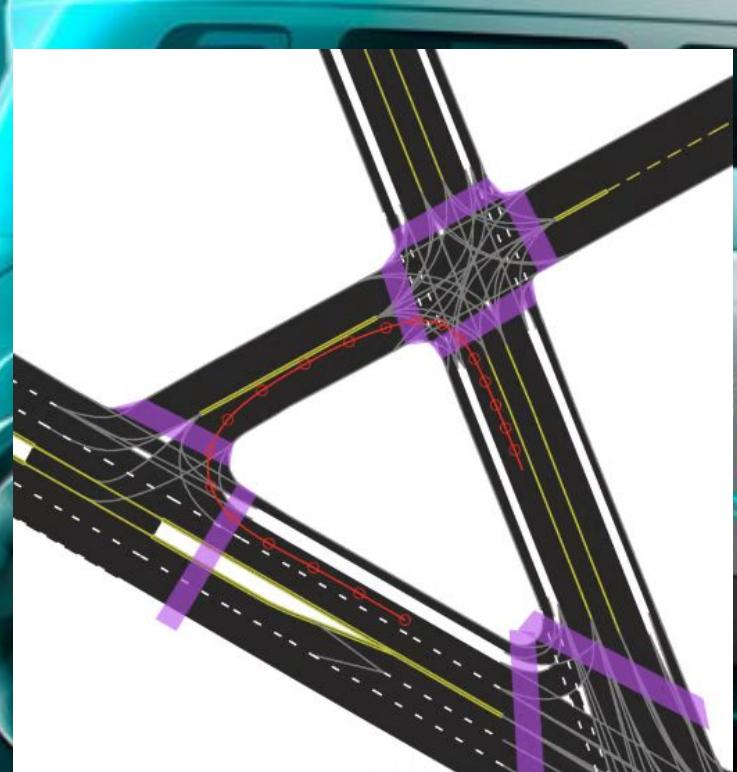
Sensor measurements for each driving session are stored in "logs." For each log, we provide intrinsic and extrinsic calibration data for LiDAR and all nine cameras.



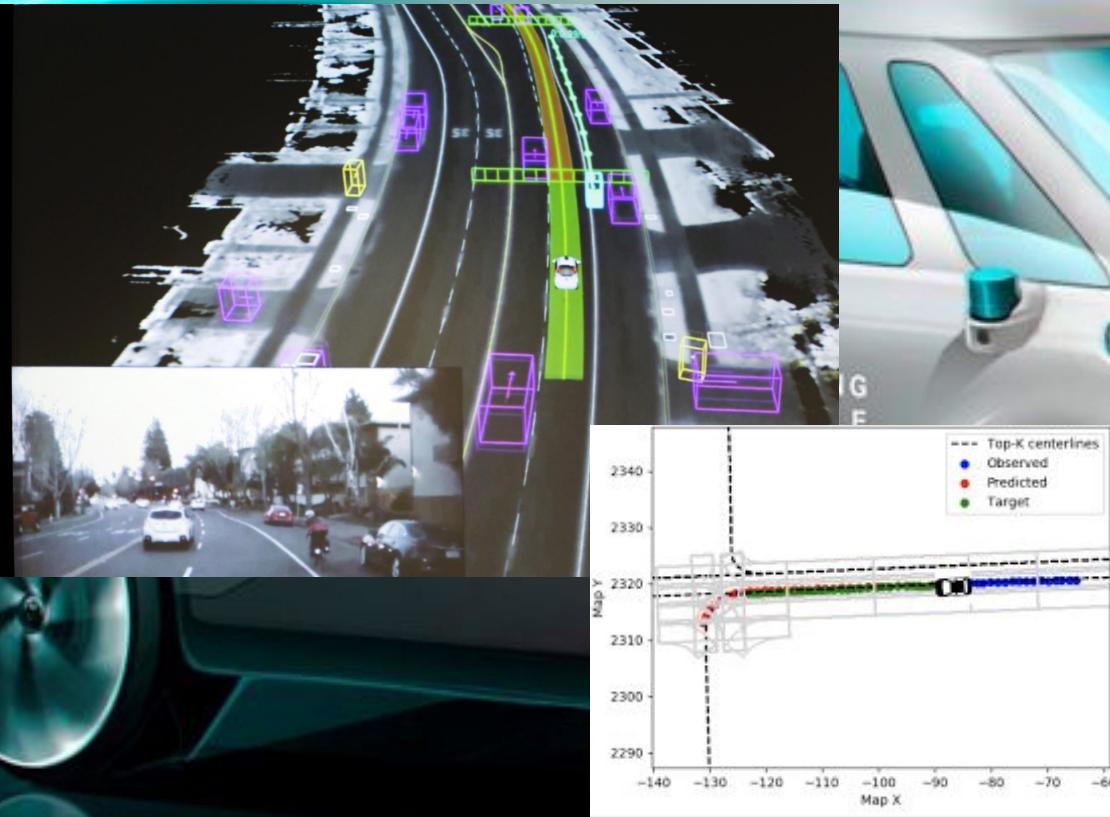
# UI/UX de la 2D la 3D - masini autonome



# UI/UX de la 2D la 3D - masini autonome



# UI/UX de la 2D la 3D - masini autonome



# UI/UX de la 2D la 3D - software financlar-bancar

The screenshot displays the FusionInvest 7.1.3.7 software interface. The top navigation bar includes tabs for Toolbox, Market Data, Referentials, Derivatives, Treasury and Collateral, Trading, Fund Admin, Cash, Life Cycle, Portfolio, Reports, and Risk Analysis. Below the toolbar are two main panes: a 2D view on the left and a 3D hierarchical view on the right.

**Left Pane (2D View):**

- Selection info.**: Shows "Add : Discount Curve" and "Instrument : 1EUR Context : None".
- Discount Curve**: Lists "EUR // SWAP // EUR" as the current curve selection and "Currency Default".
- Instrument custom setting :** Includes "Filter with currency : EUR" and "Select Family : --- XXX ---".
- Add Spread :** A text input field.
- Buttons:** Reset and Apply.

**Right Pane (3D View):**

- Message Bar:** "Pricing date is not the current date (date=20/01/2016, usePnL=true, useTheoreticals=false)."
- Default Workbook:** SUIVI PRODUCTION
- Hierarchical View (as of view: 20/01/2016):** Shows a tree structure with nodes like Suivi Prod, TEST MOT, Test OMS, INVESTMENT, and TEST PBO.
- Table:** Fx Exposure
|  | Number of securities | Nominal | Fx Exposure Asset Value | Fx Exposure Compte Cash | Fx Exposure Cash en attente | Fx Exposure Option | Fx Exposure Forward Forex | Fx Exposure Total | Fx Exposure Total in % of NAV |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Suivi Prod |  |  |  |  |  |  |  |  |  |
| TEST MOT |  |  |  |  |  |  |  |  |  |
| Test OMS |  |  |  |  |  |  |  |  |  |
| INVESTMENT |  |  |  |  |  |  |  |  |  |
| TEST PBO |  |  |  |  |  |  |  |  |  |

# UI/UX de la 2D la 3D - software financlar-bancar

Contract - Interest Rate Swap

Contract	Trading	Swapmain	Swapleg1	Swapleg2	Cash Flows
<b>Trading information</b>					
Contract ID	MNN E15	Contract status	Entry	Swapleg1	Swapleg2
Portfolio	JAMP	Portfolio group	JAMG	Counterparty	00023
Security type	IRS	Security group	IRS	Broker	...
Trade date	13-01-2011	Settlement days	2	Settlement date	17-01-2011
<b>Contract information</b>					
Standard contract	EUR 11Y IRS	Receive	Fixed	Swapleg1	Swapleg2
Currency	EUR	Notional	1000,000000	Fixed rate	5,0000
Reference rate	EURIBOR 6M	Spread	0,0000	Initial rate	0,0000
Effective date	13-01-2011	Tenor	11 Years	Swapleg1	Swapleg2
<b>Receive leg</b>			<b>Pay leg</b>		
Currency	EUR	Notional	1000,000000	Currency	EUR
Interest	Fixed	Fixed rate	5,0000	Interest	Floating
Reference rate	...	Spread	0,0000	Reference rate	EURIBOR 6M
Frequency	Annually	Initial rate	0,0000	Frequency	Semiannually
Effective date	13-01-2011	Maturity date	13-01-2022	Effective date	13-01-2011
Day count	30E/360	Business conv.	Modified followir	Day count	Act/360
Bank holidays	NONE	End of month	Same	Bank holidays	NONE
Security type	...	Security group	...	Security type	...
<b>Compliance</b>					
Status	...	Swapleg1	Swapleg2	Cash Flows	...
Can release	No	...	...	...	...

# UI/UX de la 2D la 3D - software financlar-bancar

DIFFERENT TECHNOLOGIES ARE VISIBLE

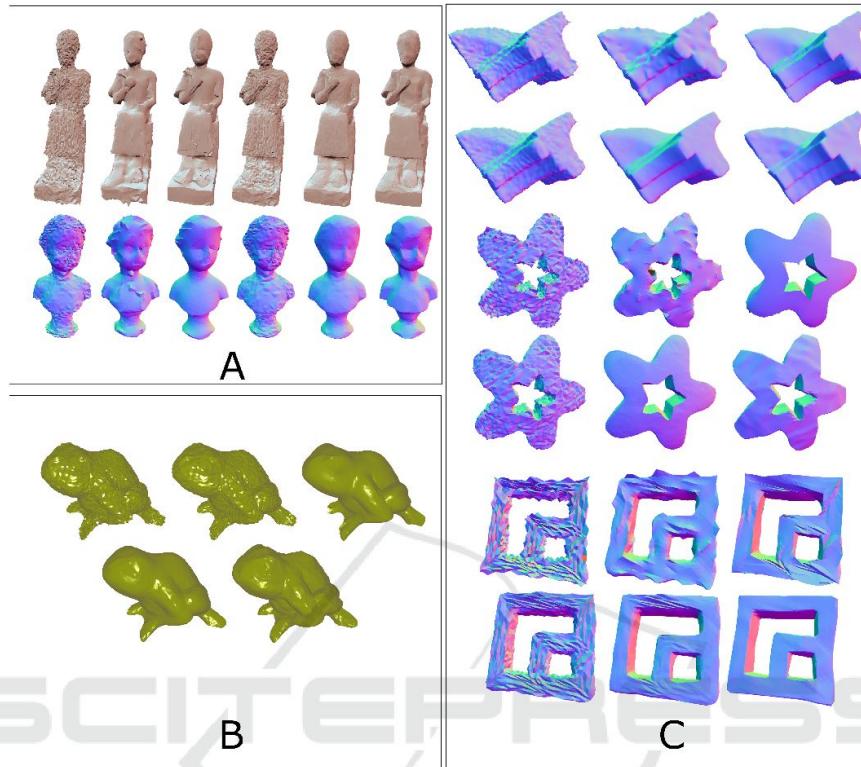
APL, C#, OCAML, HTML5 - WHICH IS OK FROM A CUSTOMER PERSPECTIVE

The image displays a composite view of financial software interfaces, illustrating the evolution of user experience from traditional desktop environments to modern mobile applications.

**Desktop Application (Left):** This section shows a complex desktop application window titled "Bonds". It features multiple panes: "General information" (Security ID: C.D 4.2 4/11), "Order Manager" (listing orders for "IHE REAL BBG DBR 3.25 (P) ..."), and "Compliance Alerts" (a grid of 100+ rows). Other visible panes include "SimCorp Dimension Dashboard DUK DSIB", "SPLIT BY ALERT TYPE", and "Workflow on Hold" (a pie chart).

**Mobile Application (Right):** This section shows a smartphone displaying the "SimCorp Alert Inbox" app. The screen includes a header with the time (4:34 PM), battery level (100%), and signal strength. Below the header, there's a list of alerts with icons: a red square for "ce failure", a blue square for "Portfolio event failed", and a yellow square for "Data exception". Each alert has a "Pending" status indicator. The app also includes a "New" button, "Assign" button, "Snooze" button, and "Delete" button. At the bottom, there's a "Key ration definitions" section and a "Data exception" section with a timestamp ("Updated just now").

# UI/UX de la 2D la 3D - cercetare academica



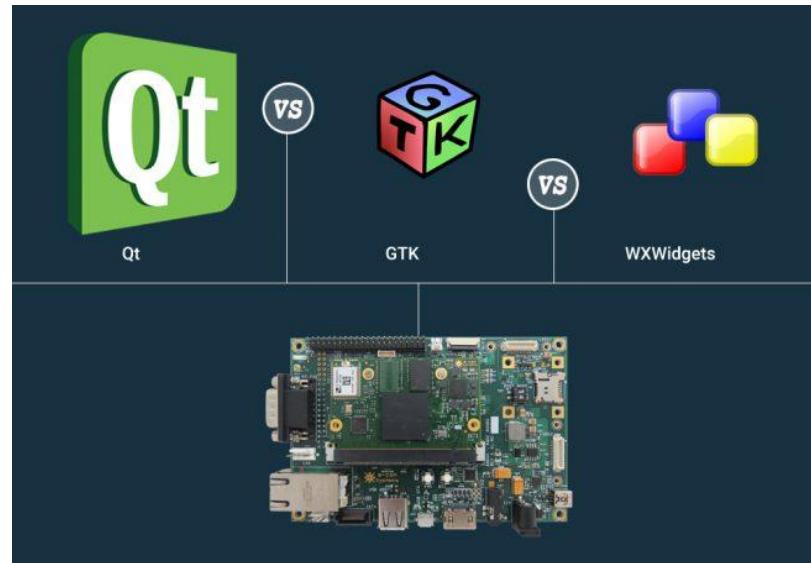
resolution filtered with curvature mean shift.



Figure 5: Curvature filtering using algorithm 2 with  $\alpha = -$

Figure 3: Descrizione esperimenti. A) from left to right: /Dubes et al., 2002/ /Trivedi and Balakrishnan, 2004/ /Zhou et al,

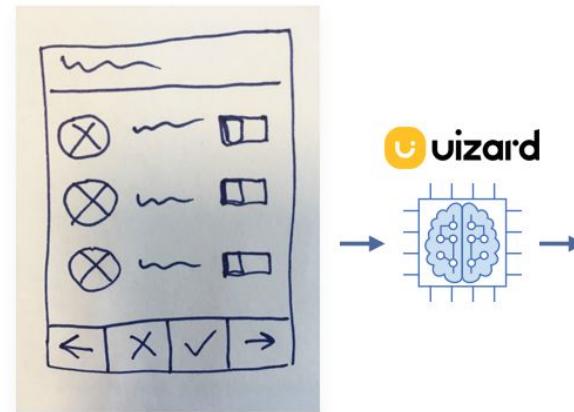
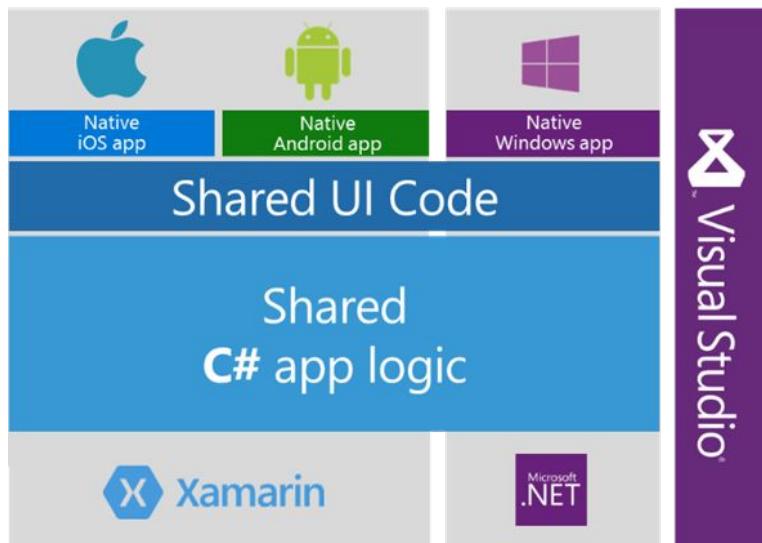
# UI/UX - provocari si oportunitati - tehnologii



[Top 5 Best Python GUI Libraries - AskPython](#)

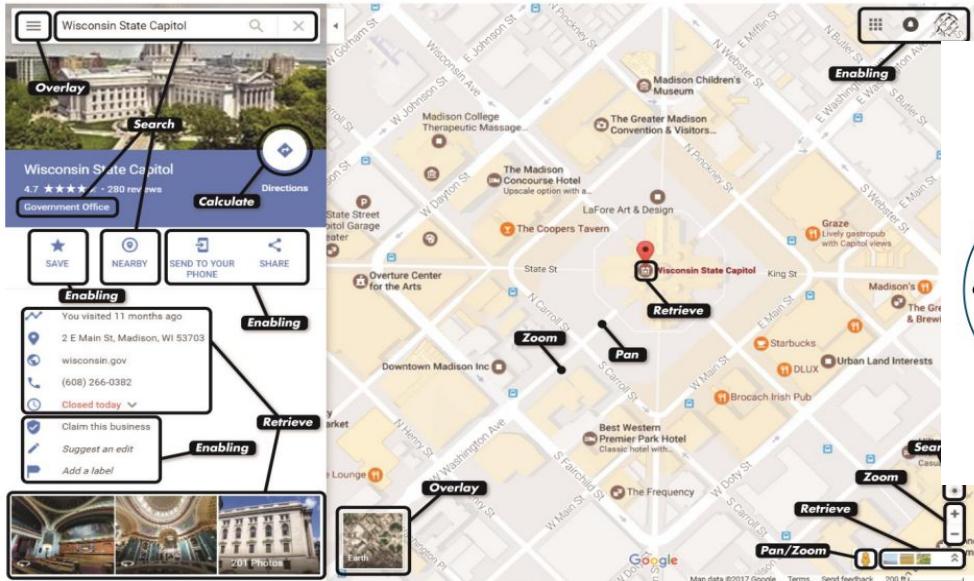
[Qt Vs GTK+ Vs WxWidgets - A Comparative Study | System on Module Blog \(e-consystems.com\)](#)

# UI/UX - provocari si oportunitati - tehnologii

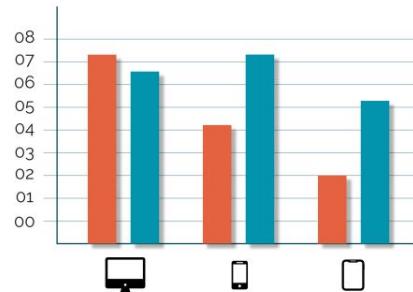


<https://uizard.io>

# UI/UX - provocari si oportunitati - metrici



## USER EXPERIENCE METRICS



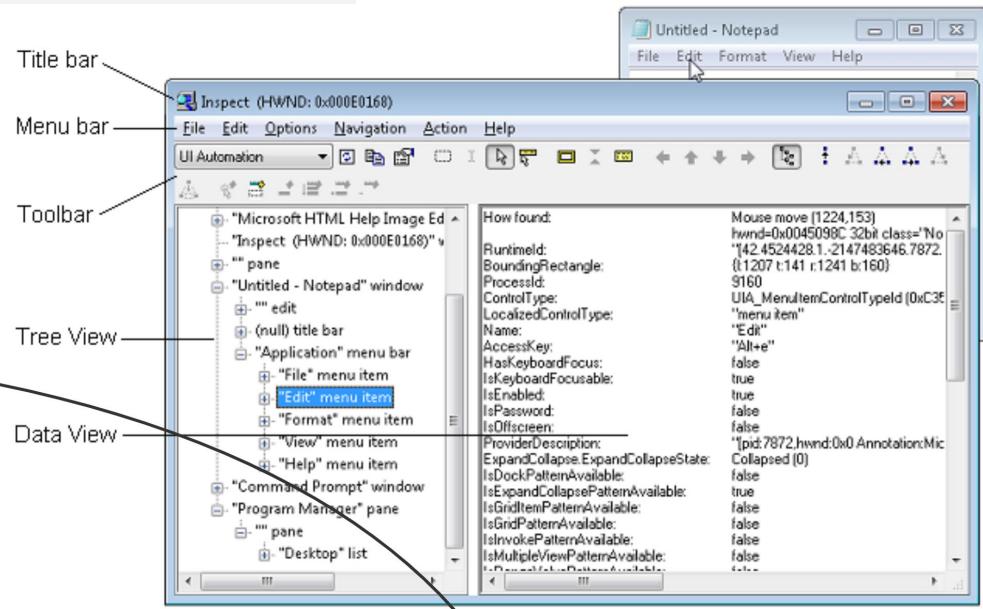
Literatura bogata/multe resurse academice

- Roth, Robert. (2017). User Interface and User Experience (UI/UX) Design. Geographic Information Science & Technology Body of Knowledge. 2017. 10.22224/gistbok/2017.2.5.
- Finstad, Kraig. (2010). The Usability Metric for User Experience. *Interacting with Computers*. 22. 323-327. 10.1016/j.intcom.2010.04.004.

What metrics and KPIs do the experts use to measure UX effectiveness? | UserZoom

The 7 most important UX KPIs and how to measure them - TestingTime

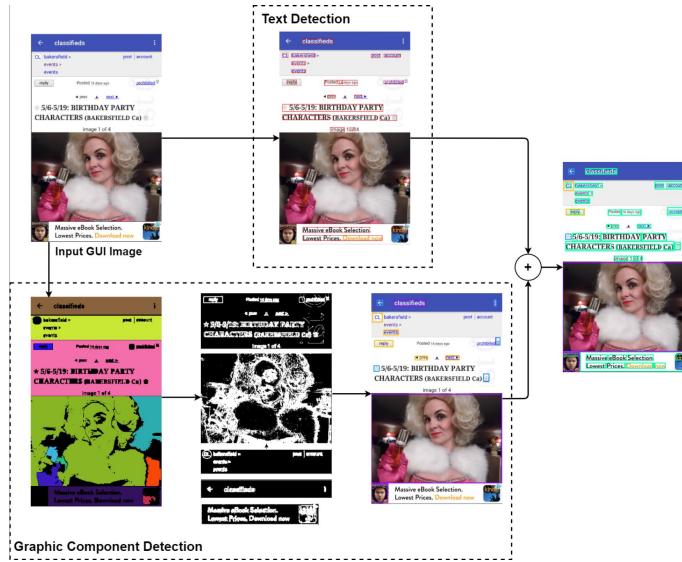
# UI/UX - provocari si oportunitati - QA



## Metrici – culegere de date

- Ce: harti “termice” (heatmaps) [User Experience Analysis and User Interface Design \(vtldesign.com\)](http://vtldesign.com)
- Cum: librari Windows de “descompunere” a unei interfete deja existente (fara avea codul sursa) [Accessibility tools - Inspect - Win32 apps | Microsoft Learn](https://learn.microsoft.com/en-us/windows/win32/appinspector/inspect)

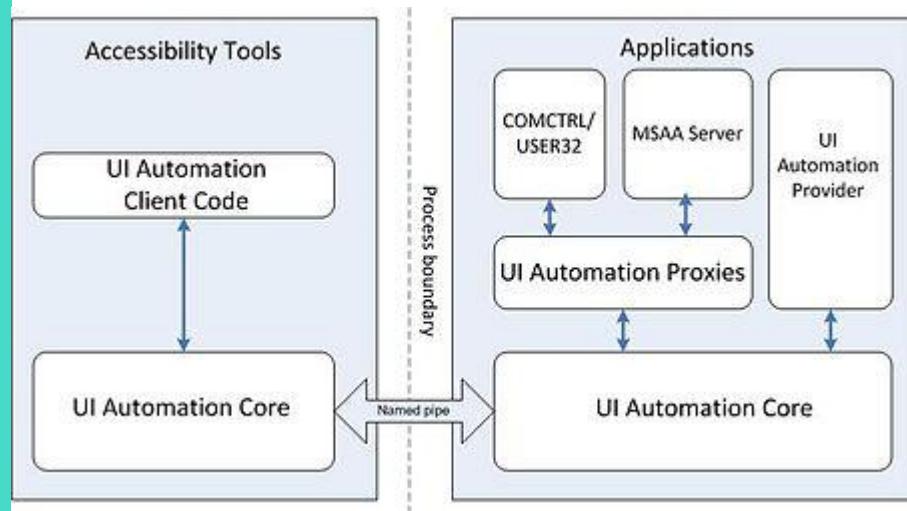
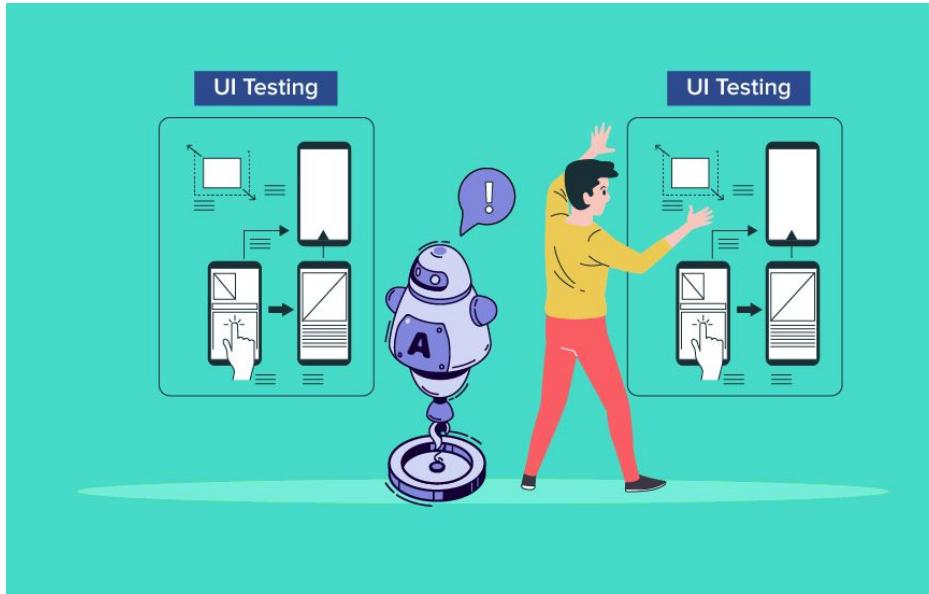
# UI/UX - provocari si oportunitati - QA



## Metrici – culegere de date

- Ce: harti “termice” (heatmaps) [User Experience Analysis and User Interface Design \(vtldesign.com\)](http://vtldesign.com)
- Cum: alternativ, folosind algoritmi de prelucrare computerizata a imaginilor “Computer Vision”
  - [GitHub - MulongXie/UIED: An accurate GUI element detection approach based on old-fashioned CV algorithms \[Upgraded on 5/July/2021\]](https://github.com/MulonXie/UIED)

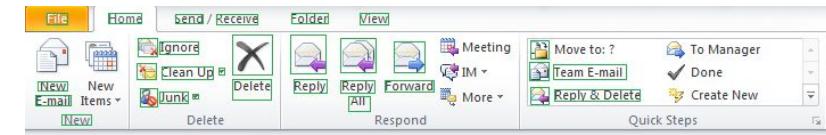
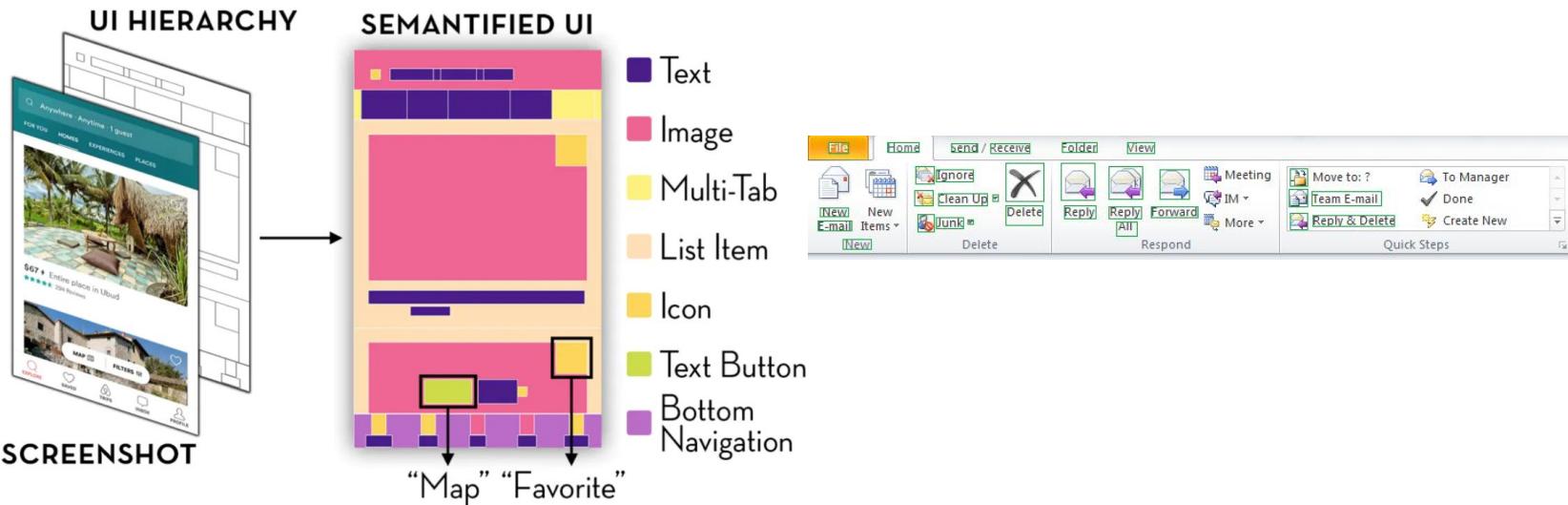
# UI/UX - provocari si oportunitati - idei de proiecte



## Testare automata

- Ce: testarea functionarii corecte a unei interfete grafice
- Cum: inregistrarea unor "evenimente cheie" (click, text introdus, precum si a rezultatelor asteptate) si "redarea" acestora prin intermediul unei librarii dedicate in aceeasi ordine (este de asteptat ca valorile afisate sa fie identice cu cele preinregistrate)
- [Difference Between Automated Testing and Manual Testi](#) ([mobileappdaily.com](http://mobileappdaily.com))
- [Microsoft UI Automation – Wikipedia](#)

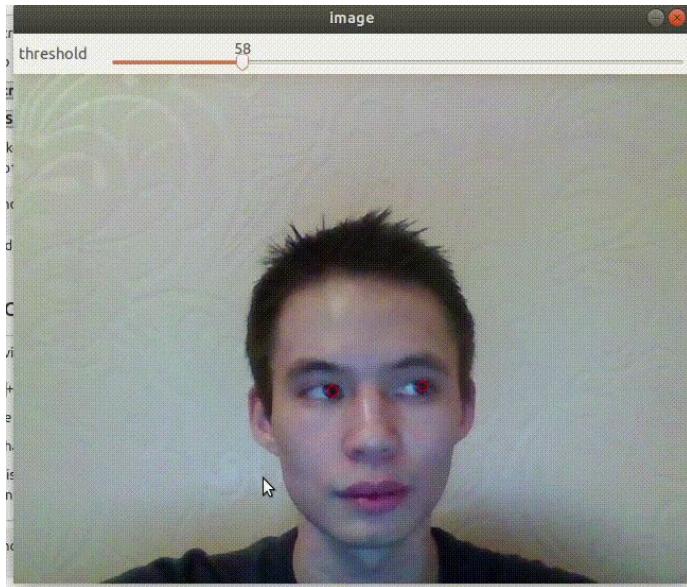
# UI/UX - provocari si oportunitati - idei de proiecte



Extractie macheta a unei interfete grafice existente folosind inteligenta artificiala/prelucrarea computerizata a imaginilor

- [GitHub - emilwallner/Screenshot-to-code: A neural network that transforms a design mock-up into a static website.](#)
- [\[2110.12320\] CoVA: Context-aware Visual Attention for Webpage Information Extraction](#)
- [How Do You Use Deep Learning to Identify UI Components? - Alibaba Cloud Community](#)

# UI/UX - provocari si oportunitati - idei de proiecte



## Harti termice

- [Tracking your eyes with Python. This article is an in-depth tutorial... | by Stepan Filonov | Medium](#)
- [Browser-Based Eye Tracking. WinkScroll: a JavaScript implementation... | by Achilleas Papakonstantinou | The Startup | Medium](#)

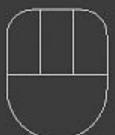
# UI/UX - provocari si oportunitati - idei de proiecte

Implicatii? Fundamentale:

- Domeniu pluridisciplinar (Programare, Matematica, Psihologie, Marketing, Arhitectura, etc.)
- Pentru industrie: controlul calitatii, fidelizarea si retentia clientilor
- Tehnologii deposite moral: tehnologii UI moderne si *backend legacy*

Aplicatii si proiecte? Cateva idei:

- Propria librarie de elemente de constructie a interfetelor grafice
- Propria librarie de conversie a machetelor (schitelor) direct in elemente de UI (fie prin generare de HTML sau cod specific QML, XAML, etc.) – implica notiuni de prelucrare de imagini si inteligenta artificiala de baza
- Propria librarie de urmarire a privirii si de corelare a acesteia cu o zona a ecranului
- Propria librarie de testare automata a unei aplicatii Desktop Windows (inregistrare, redare si evaluare teste simple pentru interfete care contin butoane, casete de text si etichete)
- Propria librarie de identificare a elementelor de UI esentiale (casete text, etichete, butoane) dintr-o interfata oarecare (sit web, aplicatie Desktop, captura de ecran oarecare, etc.)
- Culegerea de informatii statistice si vizualizarea acestora (harta termica)
- Macheta noua - interfata grafica veche - transfer evenimente UI prin RPC via user32.dll *SendMessage*



Pentru intrebari: [t.cioaca@gmail.com](mailto:t.cioaca@gmail.com)