

Component	Source/Method	Path / Reference
Face Embedding Model	ArcFace ( <a href="#">buffalo_1</a> from InsightFace)	Automatically downloaded to: <a href="#">~/.insightface/models/buffalo_1/</a>
Embedding dimension	512	ArcFace outputs a 512-dimensional vector for each face
Pretrained	Yes (used as-is, no fine-tuning)	<a href="https://github.com/deepinsight/insightface">https://github.com/deepinsight/insightface</a>
Face Detection Model	RetinaFace or ScrFD (used internally by FaceAnalysis)	Also in <a href="#">~/.insightface/models/buffalo_1/</a>
Matching Method	Cosine Similarity	Not a trainable model — pure vector comparison logic