Document Data Extraction: OCR vs NFC

OCR (Optical Character Recognition)

1. Image Capture — Camera captures document

2. Pre-processing — Deskew, noise reduction

3. Text Detection — Locate text regions

4. Character Recognition — ML-based text extraction

5. MRZ Parsing — Machine Readable Zone decode

6. Validation — Check digit verification

NFC (Near Field Communication)

1. Chip Detection — Phone detects NFC chip

2. BAC/PACE Auth — Authenticate with MRZ data

3. Data Read — Extract chip data groups

4. Active Auth — Verify chip authenticity

5. Passive Auth — Validate digital signatures

6. Clone Detection — Verify chip is original

Metric	OCR	NFC
Accuracy	95-99%	100%
Security	Medium	Very High
User effort	Take photo	Tap phone
Device req.	Camera	NFC-enabled
Tampering detect	Limited	Cryptographic

Best Practice: Combine OCR + NFC for maximum security and accuracy