A: Datasheet

Algorithm: f8_001

Developer: FarBar Inc

Submission Date: 2019_10_03

Investigation:

Frontal mugshot ranking 204 (out of 329) -- FNIR(1600000, 0, 1) = 0.0120 vs. lowest 0.0009 from sensetime_006

Mugshot profile ranking 124 (out of 260) -- FNIR(1600000, 0, 1) = 0.6689 vs. lowest 0.0550 from sensetime_006

Immigration visa-border ranking 215 (out of 218) -- FNIR(1600000, 0, 1) = 1.0000 vs. lowest 0.0009 from sensetime_006

Immigration visa-kiosk ranking 213 (out of 215) -- FNIR(1600000, 0, 1) = 1.0000 vs. lowest 0.0487 from cubox_000

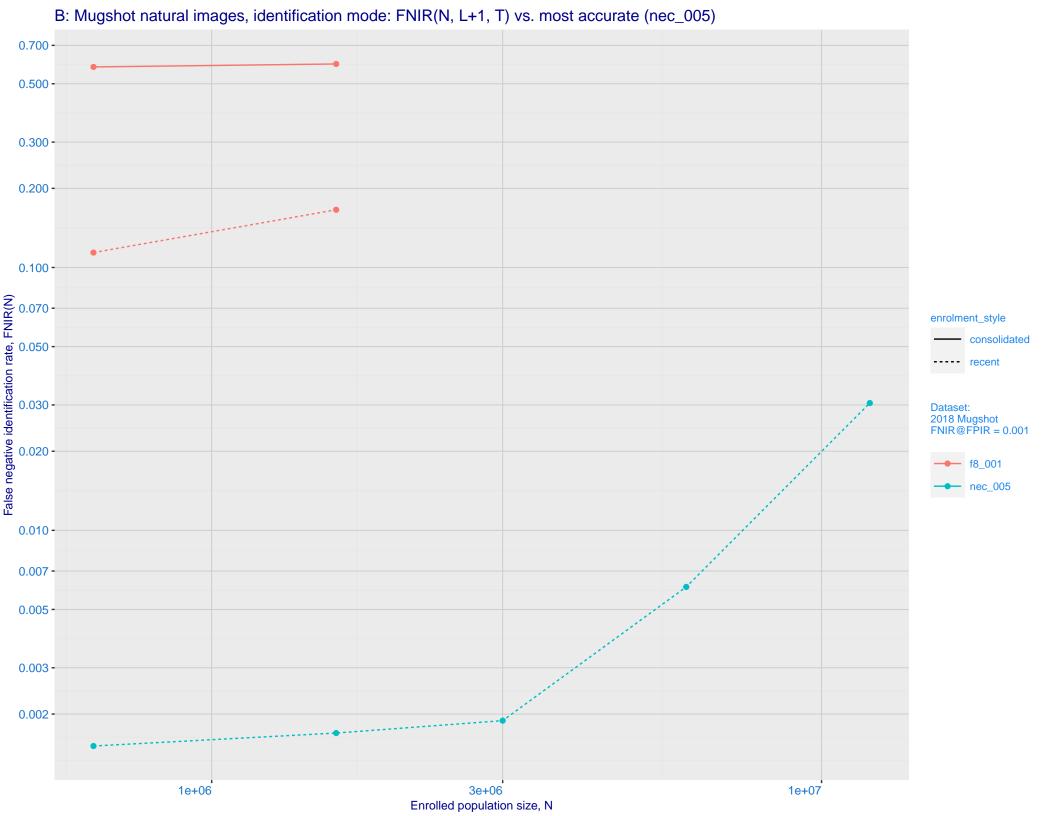
Identification:

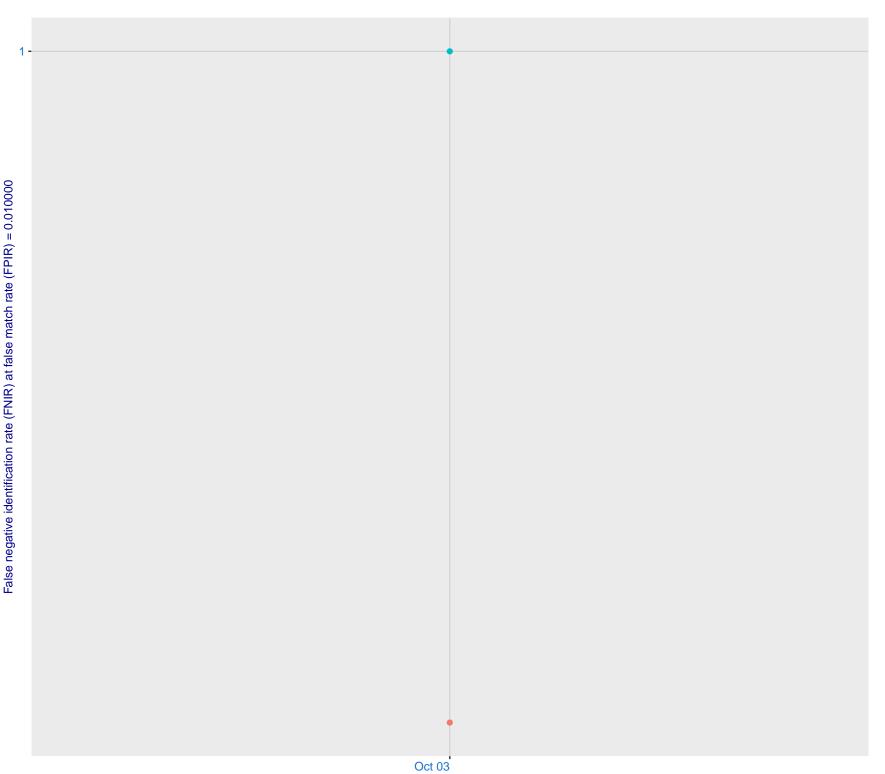
Frontal mugshot ranking 224 (out of 329) -- FNIR(1600000, T, L+1) = 0.1658, FPIR=0.001000 vs. lowest 0.0017 from nec_005

Mugshot profile ranking 164 (out of 259) -- FNIR(1600000, T, L+1) = 0.9985, FPIR=0.001000 vs. lowest 0.1331 from cloudwalk_hr_000

Immigration visa-border ranking 212 (out of 217) -- FNIR(1600000, T, L+1) = 1.0000, FPIR=0.001000 vs. lowest 0.0032 from paravision_009

Immigration visa-kiosk ranking 204 (out of 212) -- FNIR(1600000, T, L+1) = 1.0000, FPIR=0.001000 vs. lowest 0.0728 from paravision_009





Dataset

Mugshot–ProfileView

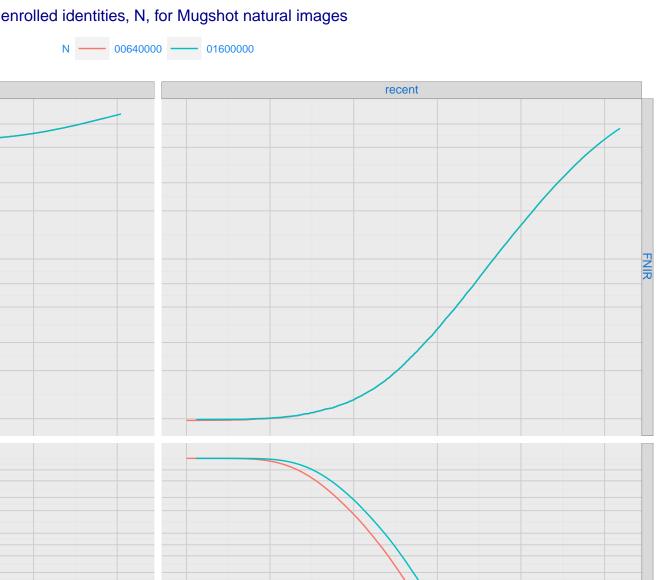
── Visa–Border

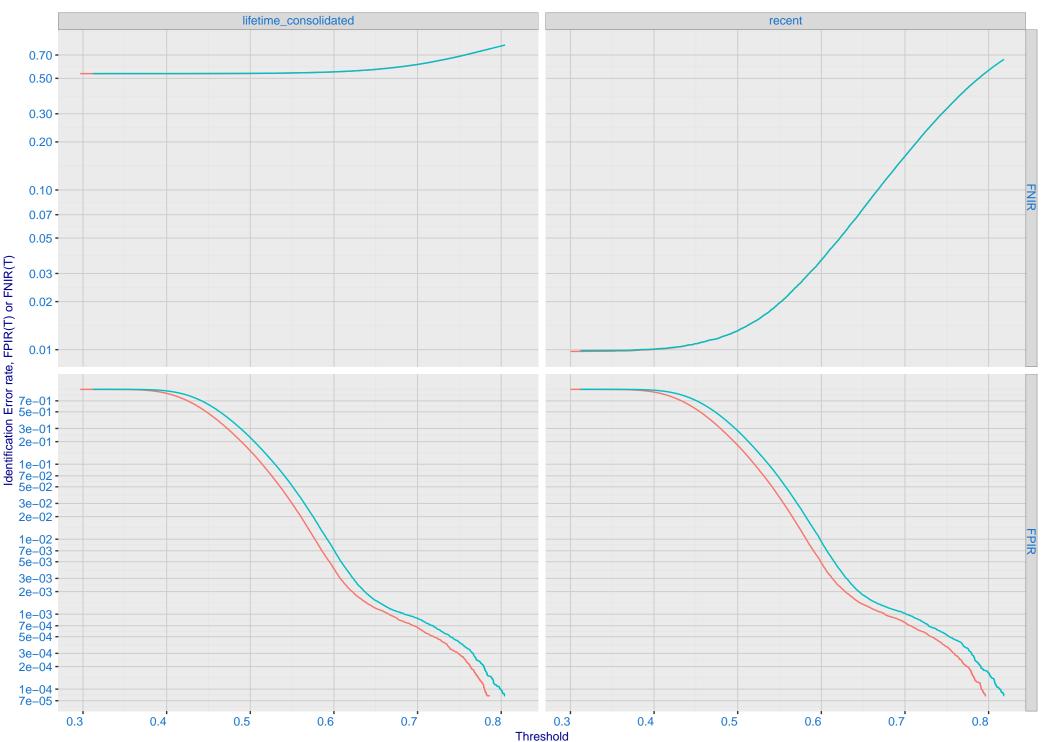
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-border visa-kiosk natural 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -Co.007 - 0.005 - 0.005 - 0.002 - 0.001 - 0.001 - 0.500 - 0.200 enrolment_style consolidated-ONE-MATE random-ONE-MATE recent-ONE-MATE unconsolidated-ALL-MATES unconsolidated-ANY-MATE 0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 -0.005 -0.003 -

0.002 -

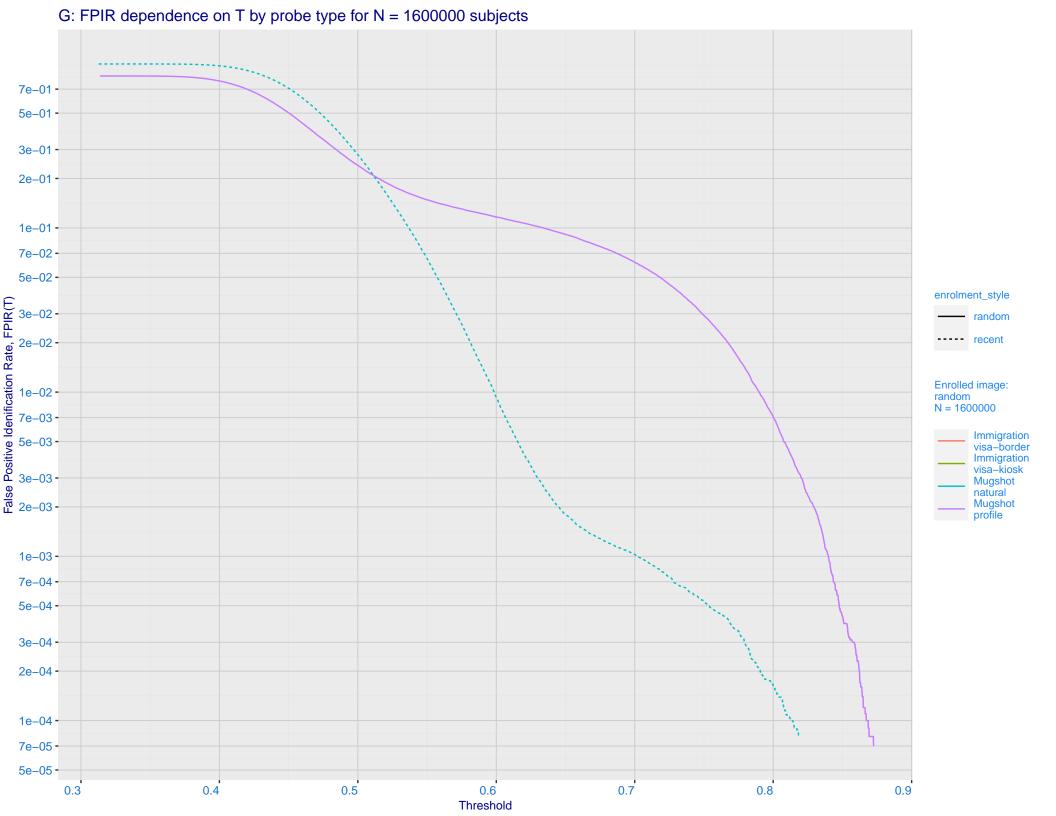
0.001 -

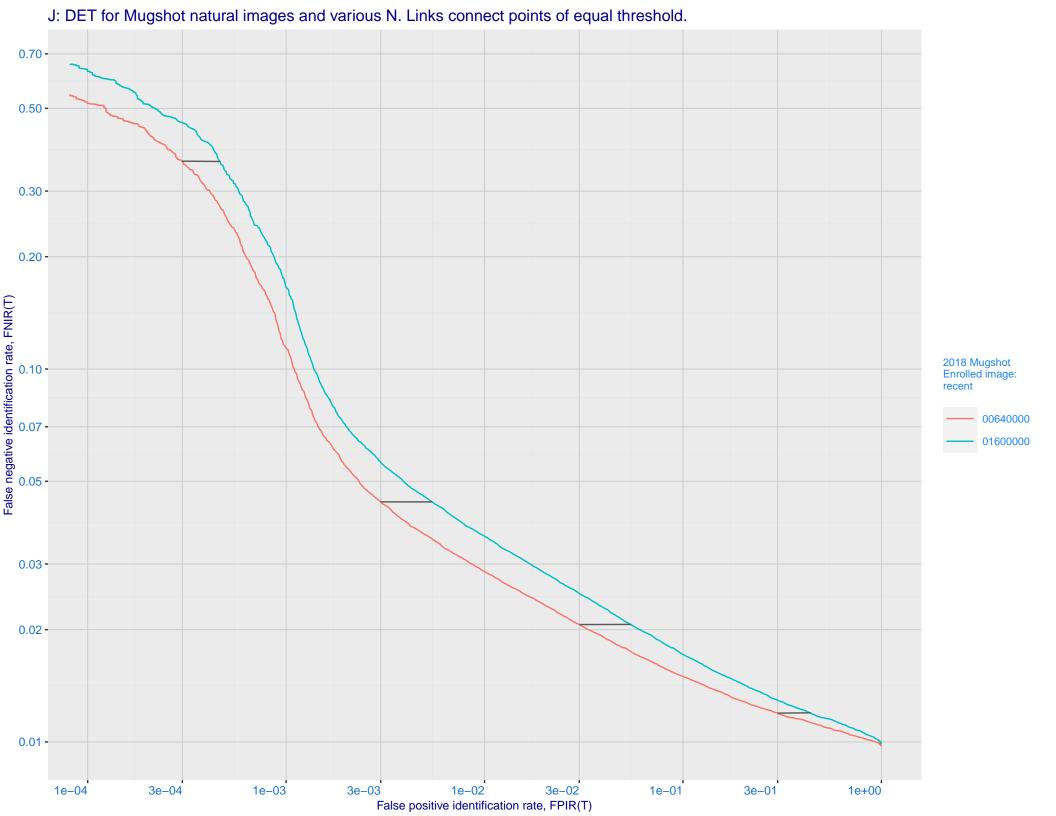
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



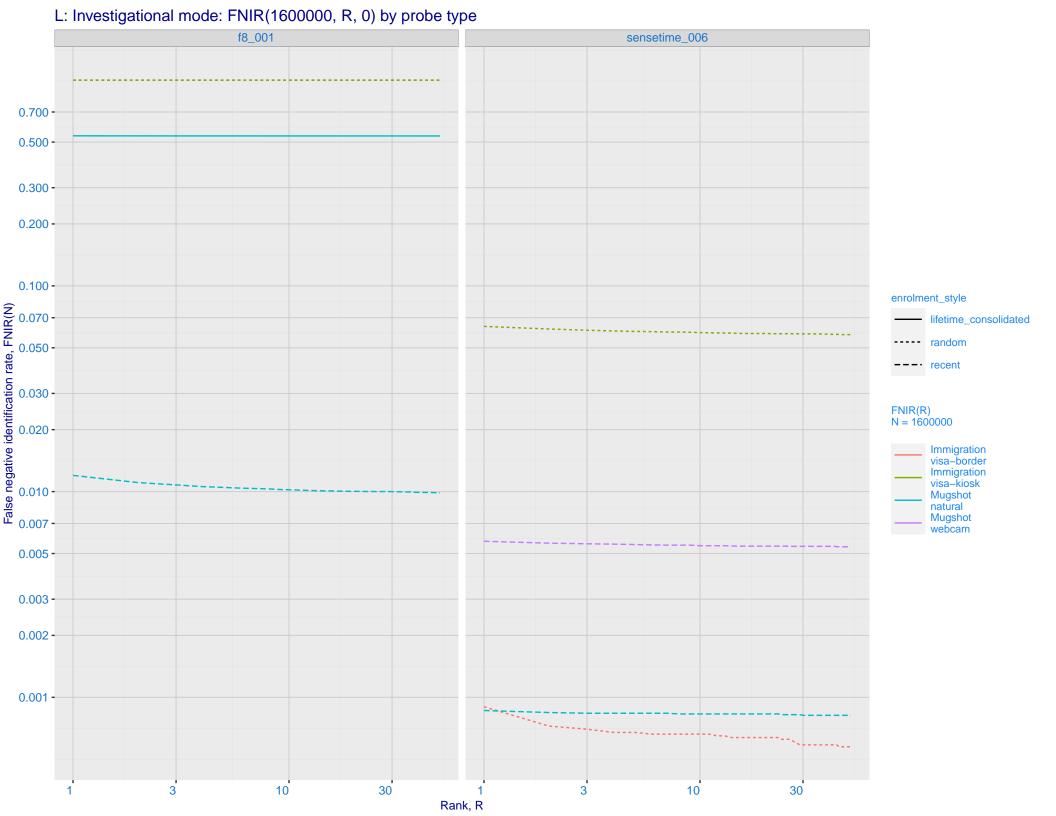


F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 -5e+01 -3e+01 -2e+01 -1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -3e-01 -2e-01 -Selectivity. SET (4) 7e-01 -7e-02 -5e-02 -3e-02 -Enrolled images: recent N = 1600000 Mugshot natural 3e-02 -2e-02 -1e-02 -7e-03 -5e-03 -3e-03 -2e-03 -1e-03 -7e-04 -5e-04 -3e-04 -2e-04 -1e-04 -7e-05 -1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 False Positive Idenification Rate, FPIR(T)





K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_006) Immigration **Immigration** visa-border visa-kiosk 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 -0.005 - 0.003 - 0.002 - 0.001 - 0.001 - 0.300 - 0.300 - 0.200 enrolment_style consolidated ---- random --- recent Mugshot Mugshot webcam natural FNIR@Rank = 1 -- f8_001 sensetime_006 0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 -0.005 -0.003 -0.002 -0.001 -1e+06 3e+06 1e+07 1e+06 3e+06 1e+07 Enrolled population size, N



	M: Template duration; search duration vs. N. The blue and pink ribbon covers 95 percent of observed measurements. The template generation time is independent of N. The log and power–law models are fit to the first two (N,T) observations
Search Duration (milliseconds)	
	Enrolled population size, N, one image per person

Q: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing



