A: Datasheet

Algorithm: 3divi_1

Developer: 3Divi

Submission Date: 2018_02_15

Template size: 4224 bytes

Template time (2.5 percentile): 392 msec

Template time (median): 425 msec

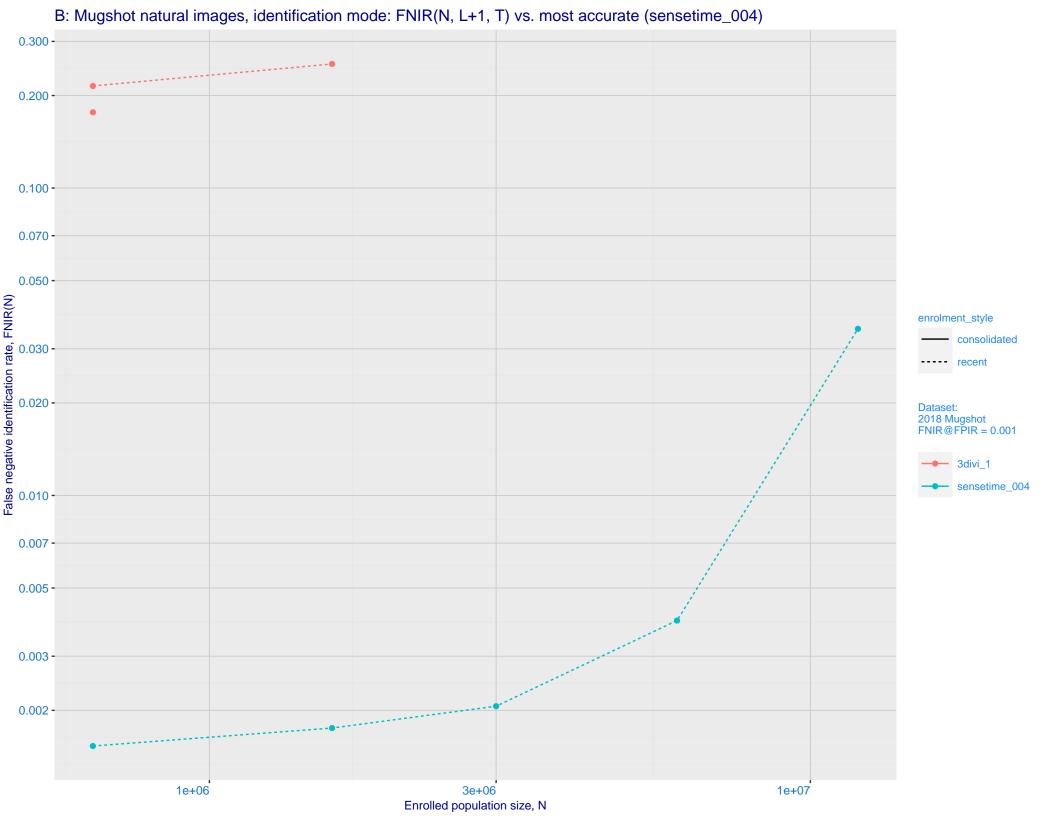
Template time (97.5 percentile): 487 msec

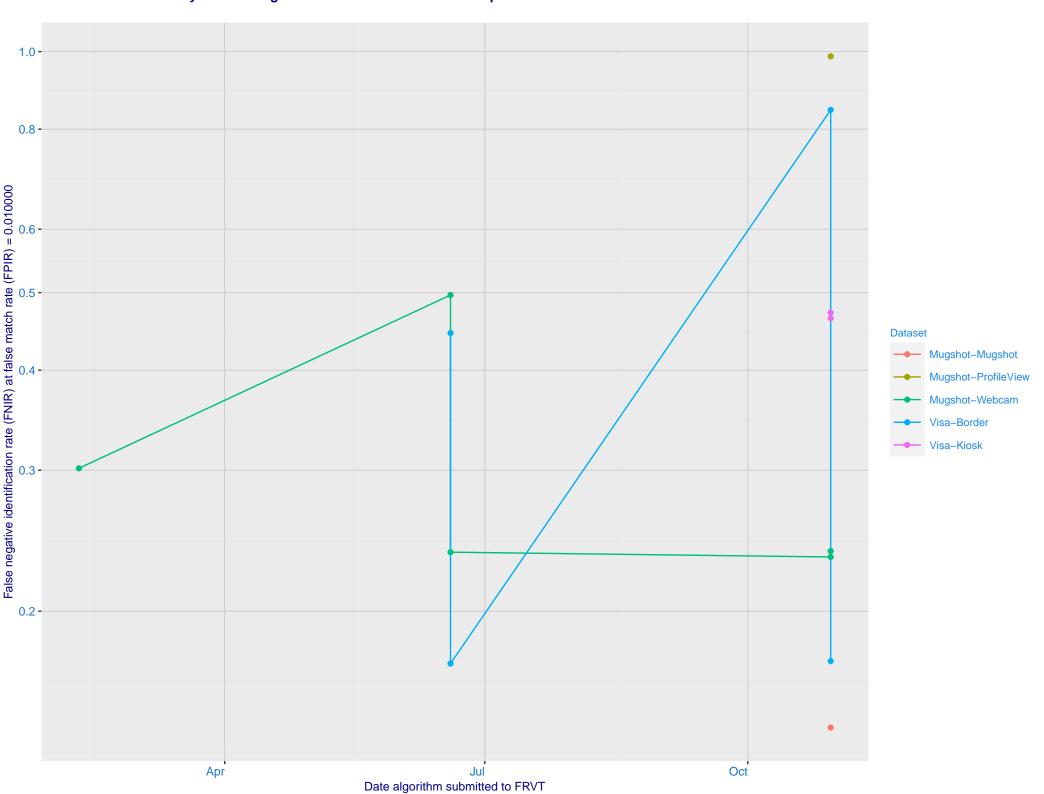
Investigation:

Frontal mugshot ranking 196 (out of 279) — FNIR(1600000, 0, 1) = 0.0349 vs. lowest 0.0009 from sensetime_005

Identification:

Frontal mugshot ranking 199 (out of 279) — FNIR(1600000, T, L+1) = 0.2533, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

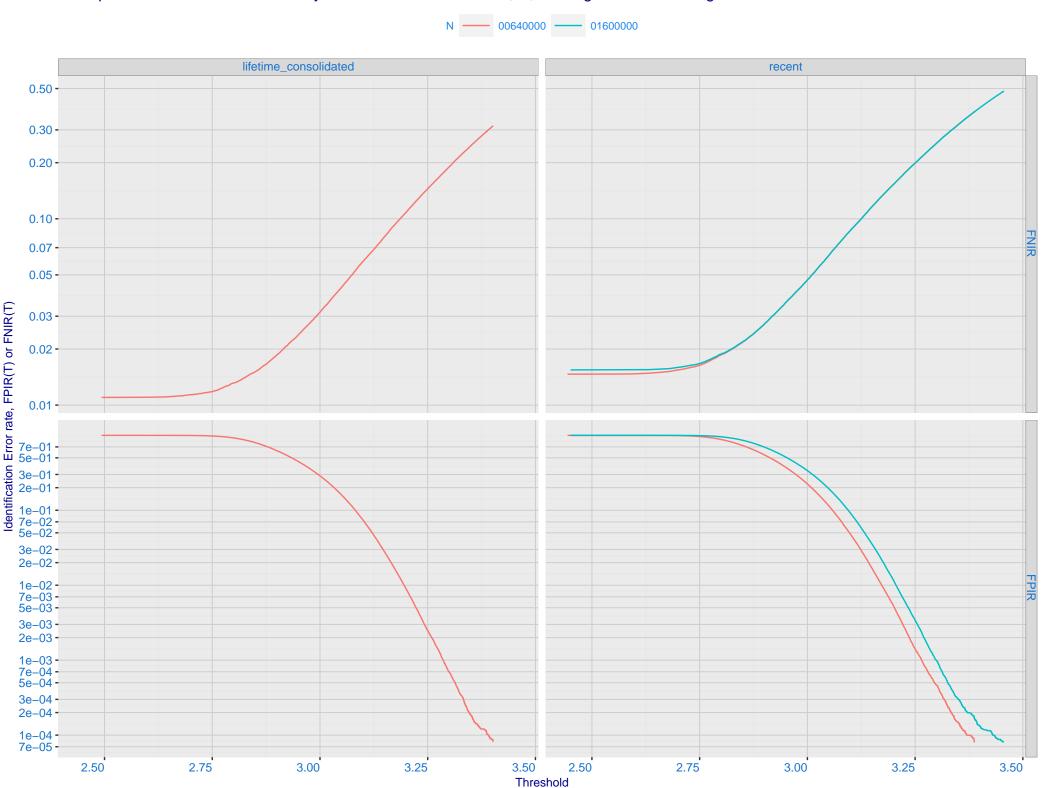




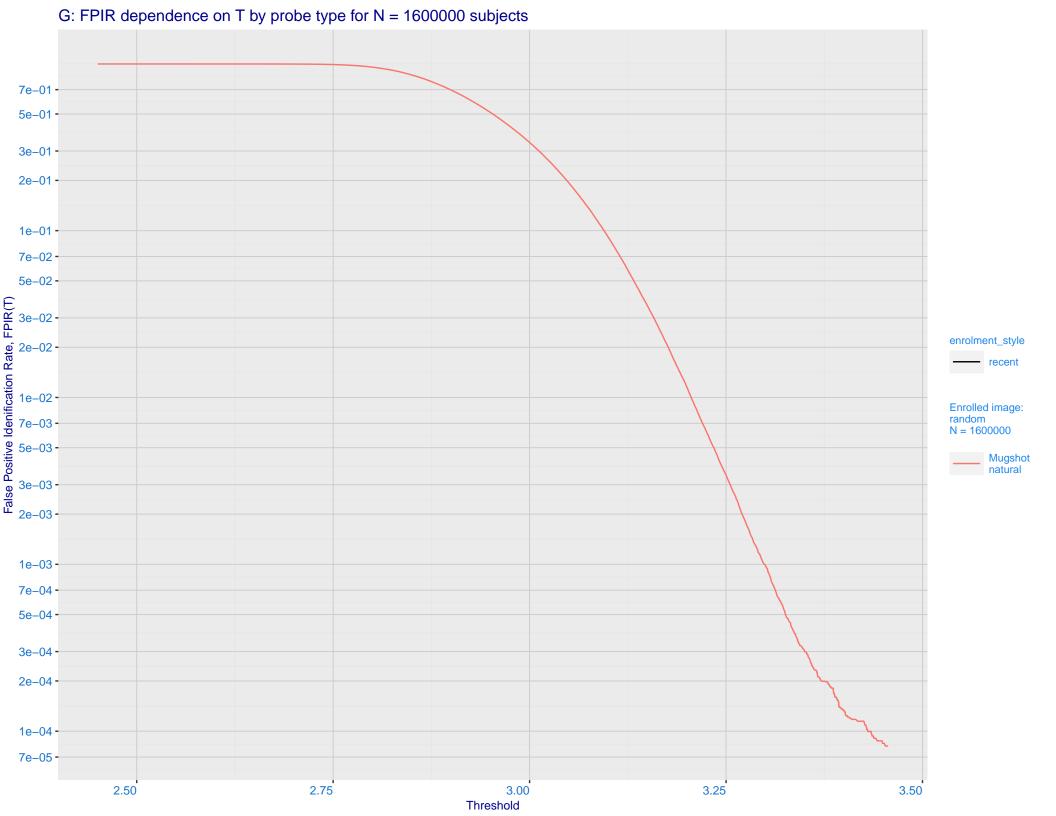
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-border visa-kiosk natural 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 -0.050 -3divi 1 0.030 -0.020 -0.010 -0.007 -Ealse negative identification rate, FNIR(T) 0.003 - 0.000 - 0.500 - 0.500 - 0.200 - 0.100 - 0. enrolment_style random-ONE-MATE recent-ONE-MATE 0.070 -0.050 sensetime 004 0.030 -0.020 -0.010 -0.007 -0.005 -0.003 -0.002 -0.001 -

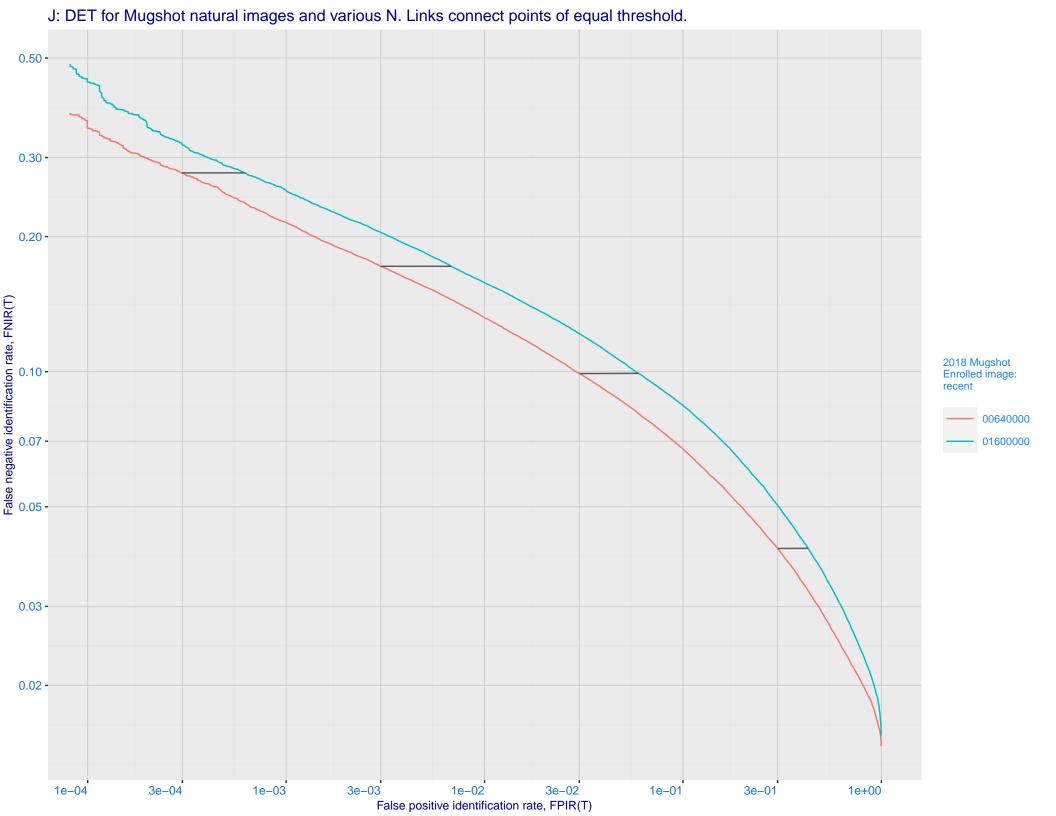
False positive identification rate, FPIR(T)

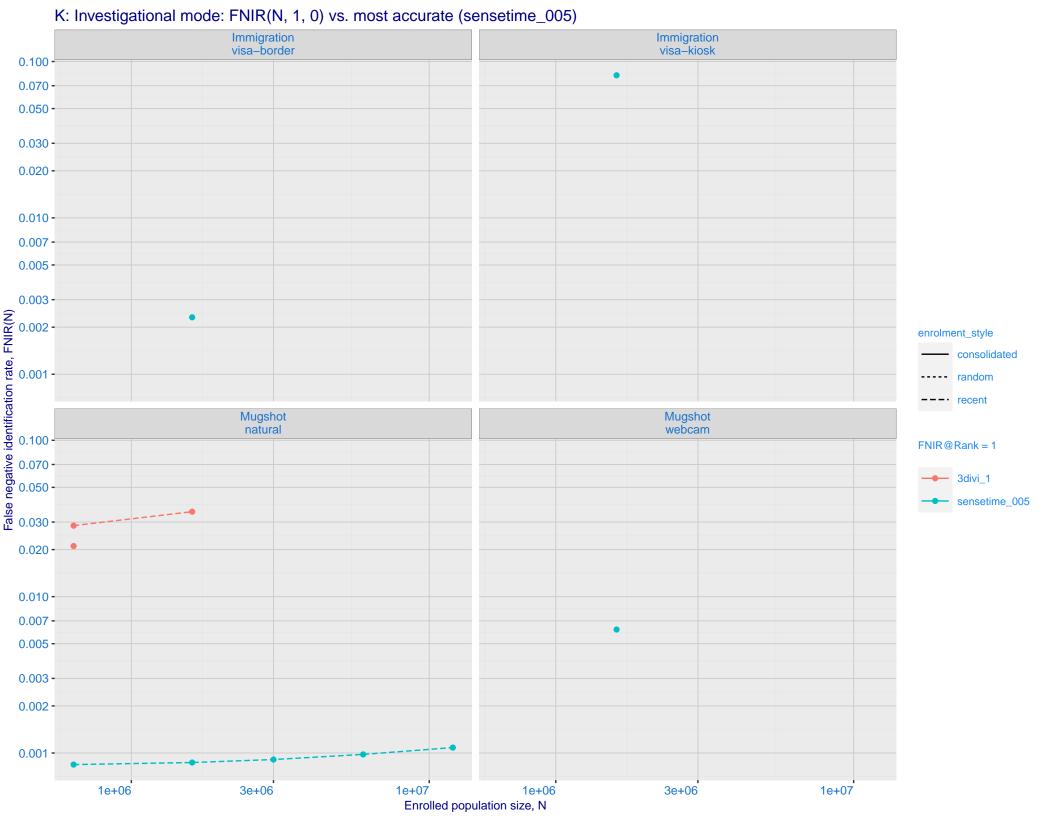
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

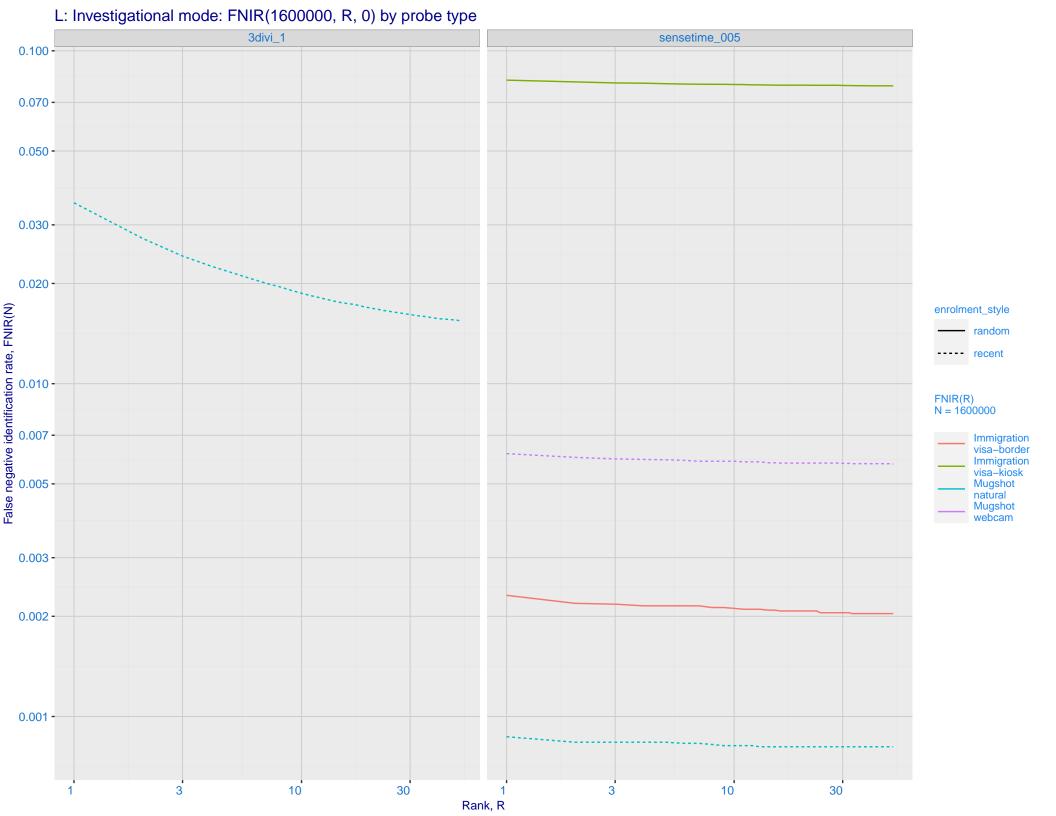


F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 -5e+01 -3e+01 -2e+01 -1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -3e-01 -3e=01 -2e=01 -3e=01 -2e=01 -1e=01 -7e=02 -5e=02 -Enrolled images: recent N = 1600000 Mugshot natural 3e-02 -2e-02 -1e-02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









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 - Log Model ---- Power Law Model 300 -200 -30 -20 -10 -7e+05 8e+05 1e+06 Enrolled population size, N, one image per person

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



