A: Datasheet

Algorithm: allgovision_001

Developer: AllGoVision

Submission Date: 2020_07_14

Template size: 2048 bytes

Template time (2.5 percentile): 772 msec

Template time (median): 778 msec

Template time (97.5 percentile): 851 msec

Investigation:

Frontal mugshot ranking 176 (out of 329) -- FNIR(1600000, 0, 1) = 0.0090 vs. lowest 0.0009 from sensetime_006

Mugshot webcam ranking 191 (out of 291) -- FNIR(1600000, 0, 1) = 0.0383 vs. lowest 0.0057 from sensetime_006

Mugshot profile ranking 123 (out of 260) — FNIR(1600000, 0, 1) = 0.6609 vs. lowest 0.0550 from sensetime_006

Immigration visa-border ranking 136 (out of 218) -- FNIR(1600000, 0, 1) = 0.0206 vs. lowest 0.0009 from sensetime_006

Immigration visa-kiosk ranking 153 (out of 215) -- FNIR(1600000, 0, 1) = 0.2411 vs. lowest 0.0487 from cubox_000

Identification:

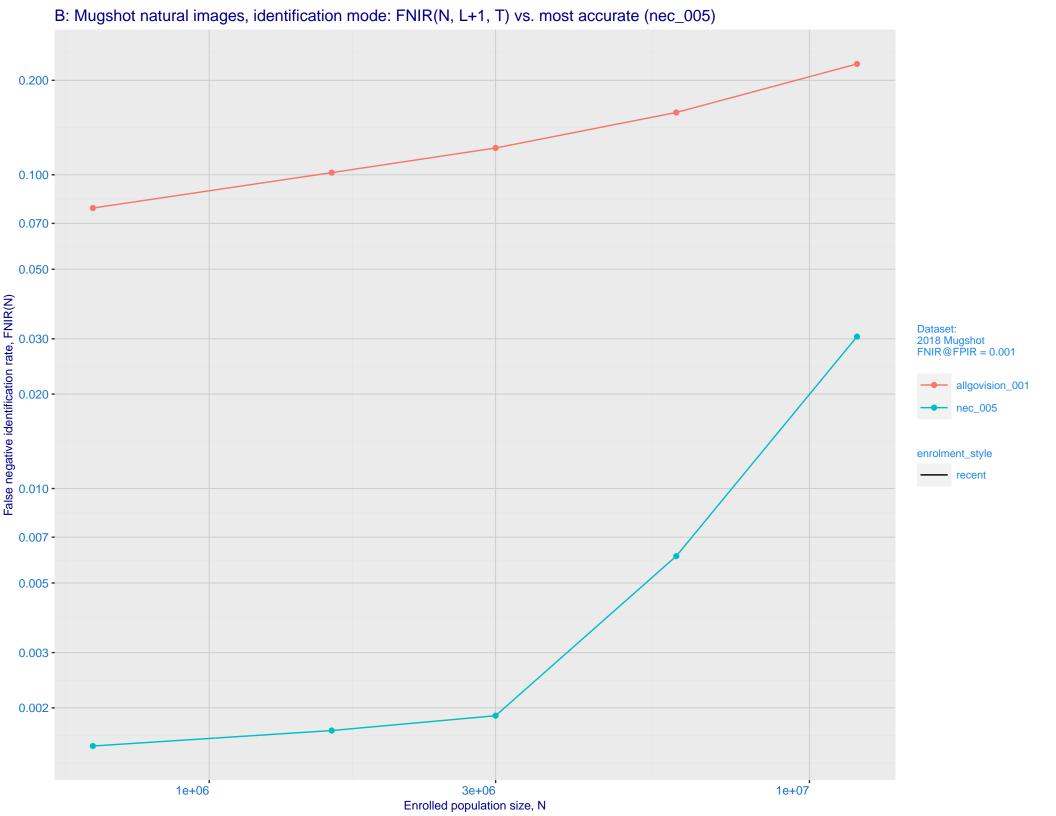
Frontal mugshot ranking 192 (out of 329) -- FNIR(1600000, T, L+1) = 0.1016, FPIR=0.001000 vs. lowest 0.0017 from nec_005

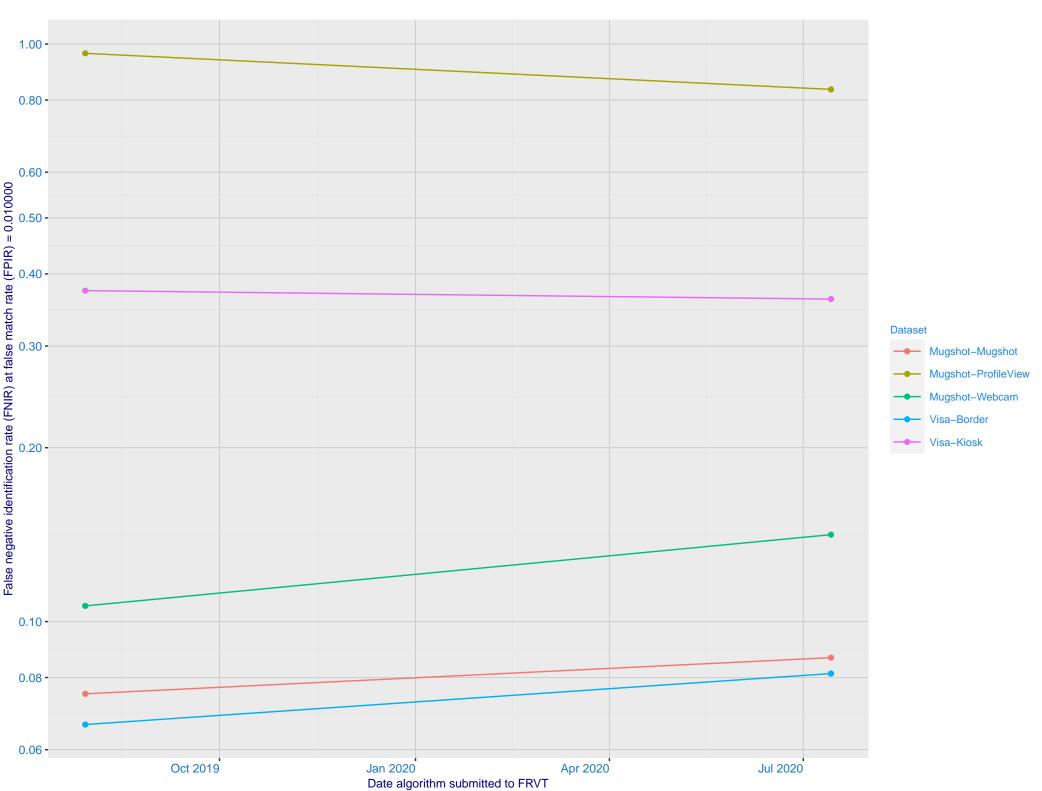
Mugshot webcam ranking 190 (out of 289) -- FNIR(1600000, T, L+1) = 0.2204, FPIR=0.001000 vs. lowest 0.0120 from nec_005

Mugshot profile ranking 98 (out of 259) — FNIR(1600000, T, L+1) = 0.9857, FPIR=0.001000 vs. lowest 0.1331 from cloudwalk_hr_000

Immigration visa-border ranking 138 (out of 217) -- FNIR(1600000, T, L+1) = 0.1503, FPIR=0.001000 vs. lowest 0.0032 from paravision_009

Immigration visa-kiosk ranking 108 (out of 212) -- FNIR(1600000, T, L+1) = 0.4926, FPIR=0.001000 vs. lowest 0.0728 from paravision_009

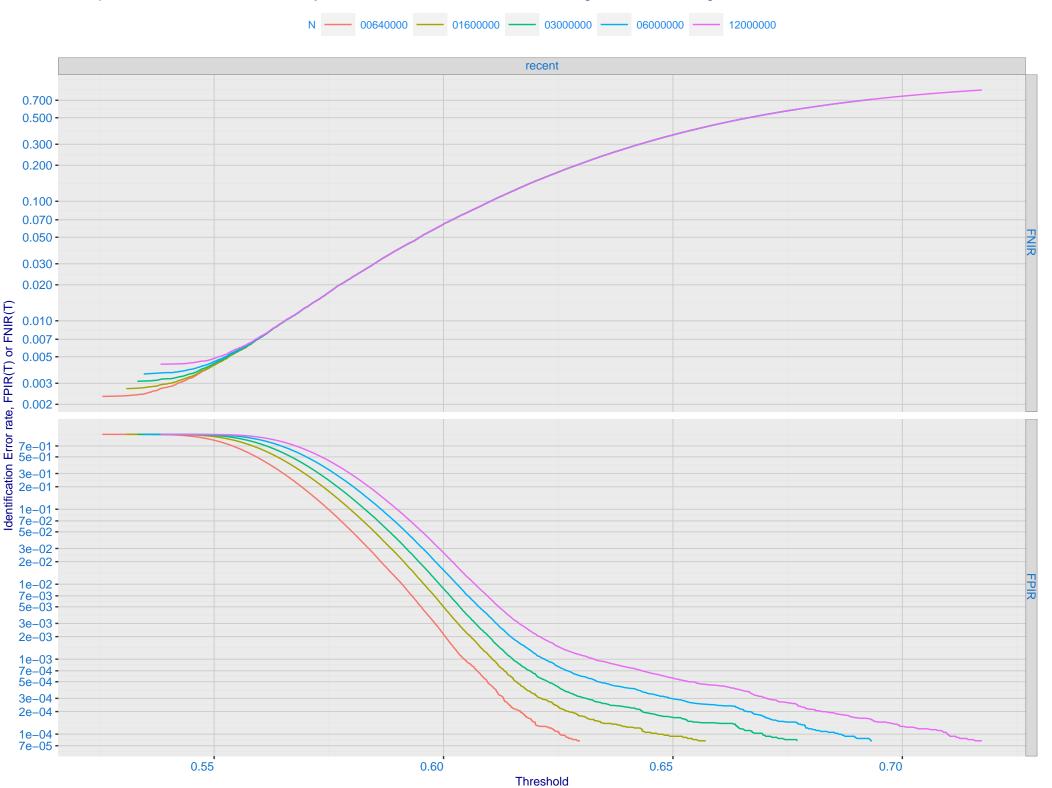




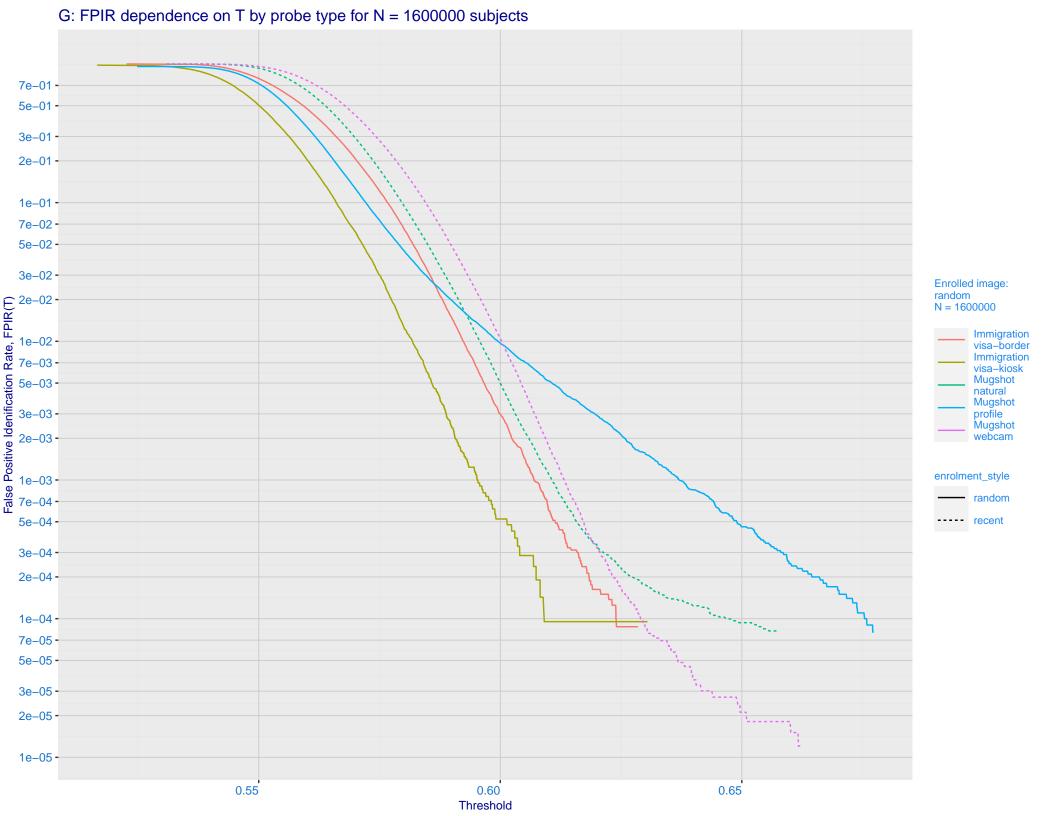
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals **Immigration** Immigration Mugshot visa-border visa-kiosk natural 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 allgovision 001 0.050 -0.030 -0.020 -0.010 -Ealse negative identification rate, FNIR(T) 0.003 - 0.002 - 0.001 - 0.500 - 0.500 - 0.200 - 0. enrolment_style 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 -1e-03e-04e-03e-03e-03e-02e-02e-01e+001e-03e-04e-03e-02e-02e-02e-01e+001e-03e-04e-03e-04e-03e-01e+00

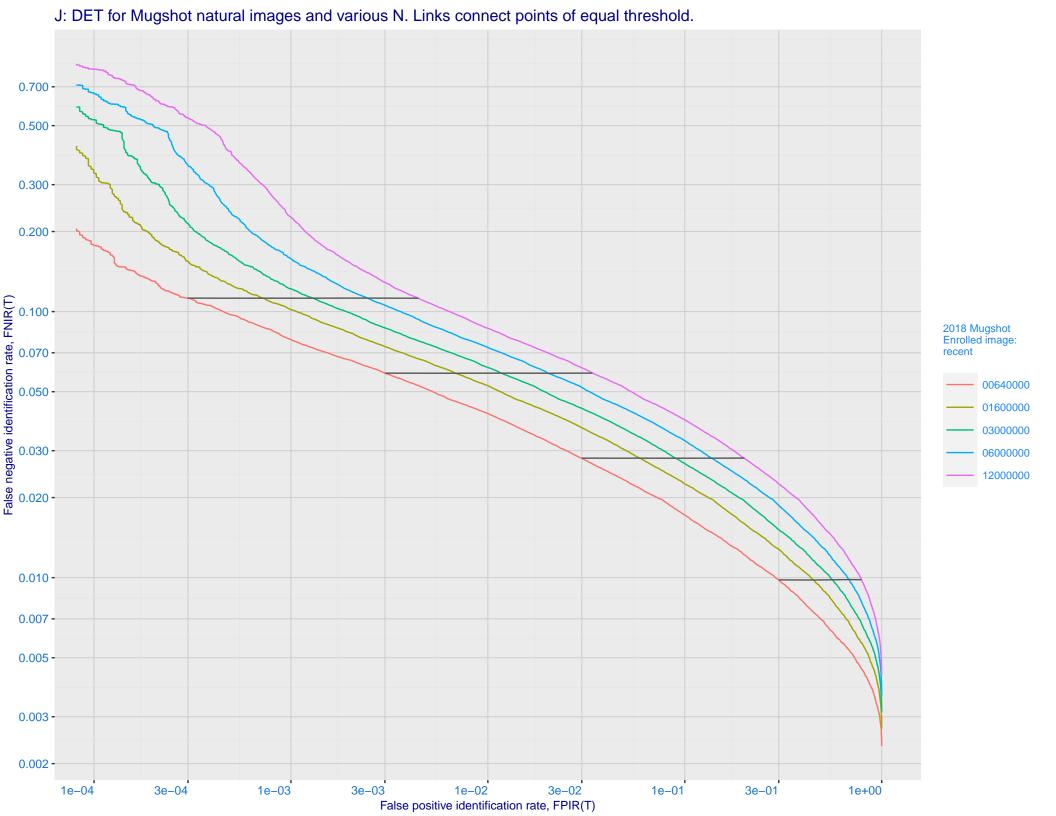
False positive identification rate, FPIR(T)

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

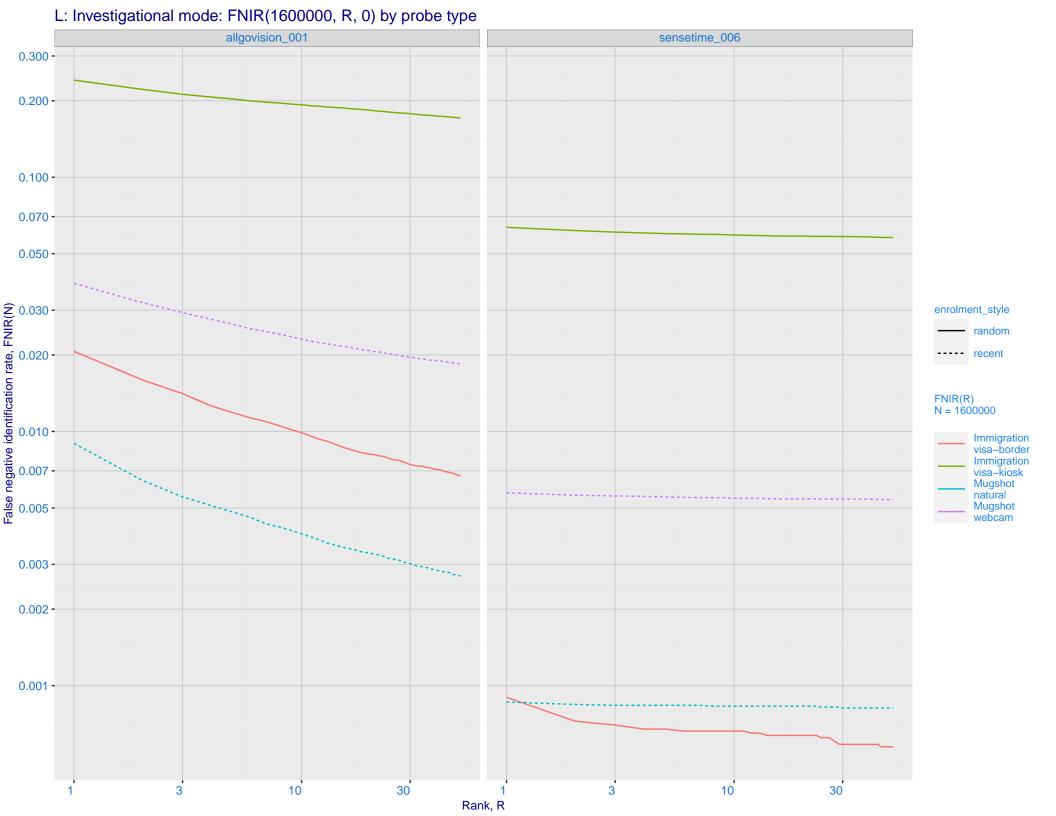


F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 -5e+01 -3e+01 -2e+01 -1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -3e-01 -2e-01 -1e-01 -7e-02 -5e-02 -3e-02 -3e-02 -1e-02 -**Enrolled images:** recent N = 1600000 Mugshot natural Mugshot webcam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

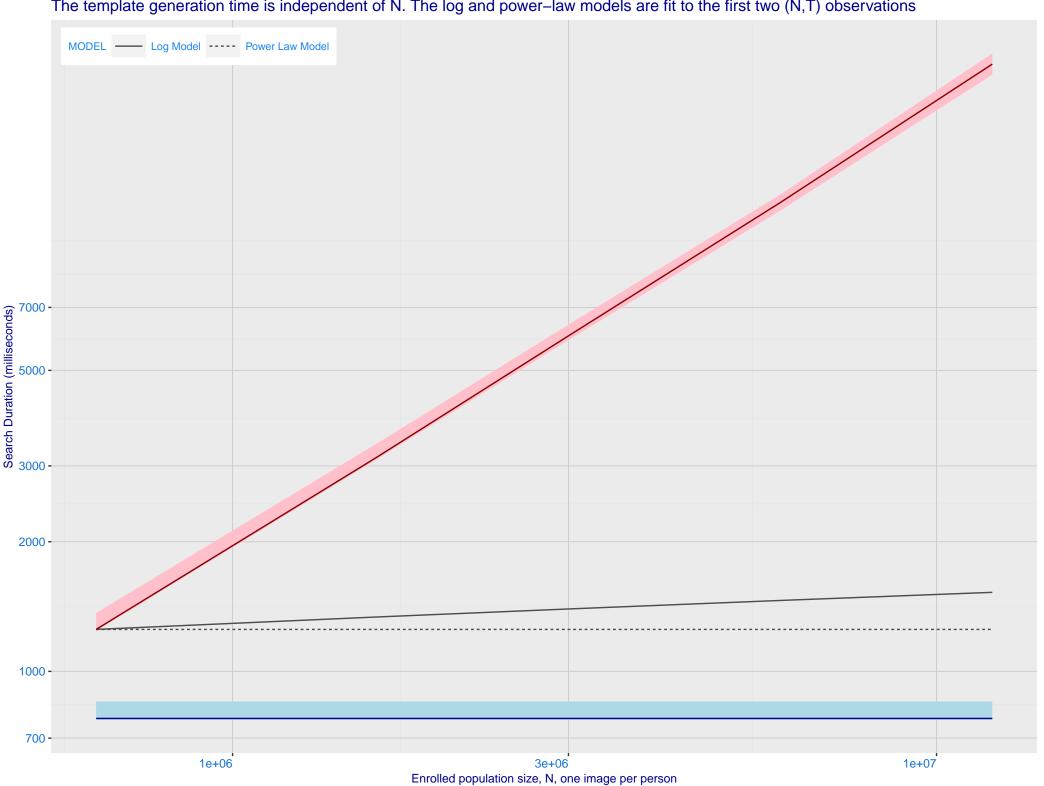




K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_006) Immigration **Immigration** visa-border visa-kiosk 0.300 -0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 -0.005 -Palse negative identification rate, FNIR(N) 0.002 - 0.001 - 0.300 - 0.200 - 0.070 - 0. FNIR@Rank = 1 allgovision_001 sensetime_006 Mugshot natural Mugshot webcam enrolment_style random ---- recent 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



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



