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 112 (out of 259) -- FNIR(1600000, 0, 1) = 0.0090 vs. lowest 0.0009 from sensetime_005

Mugshot webcam ranking 124 (out of 221) -- FNIR(1600000, 0, 1) = 0.0383 vs. lowest 0.0062 from sensetime_005

Mugshot profile ranking 66 (out of 190) -- FNIR(1600000, 0, 1) = 0.6609 vs. lowest 0.0591 from sensetime_005

Immigration visa-border ranking 69 (out of 142) -- FNIR(1600000, 0, 1) = 0.0206 vs. lowest 0.0014 from visionlabs_009

Immigration visa-kiosk ranking 83 (out of 139) -- FNIR(1600000, 0, 1) = 0.2411 vs. lowest 0.0694 from cib_000

Identification:

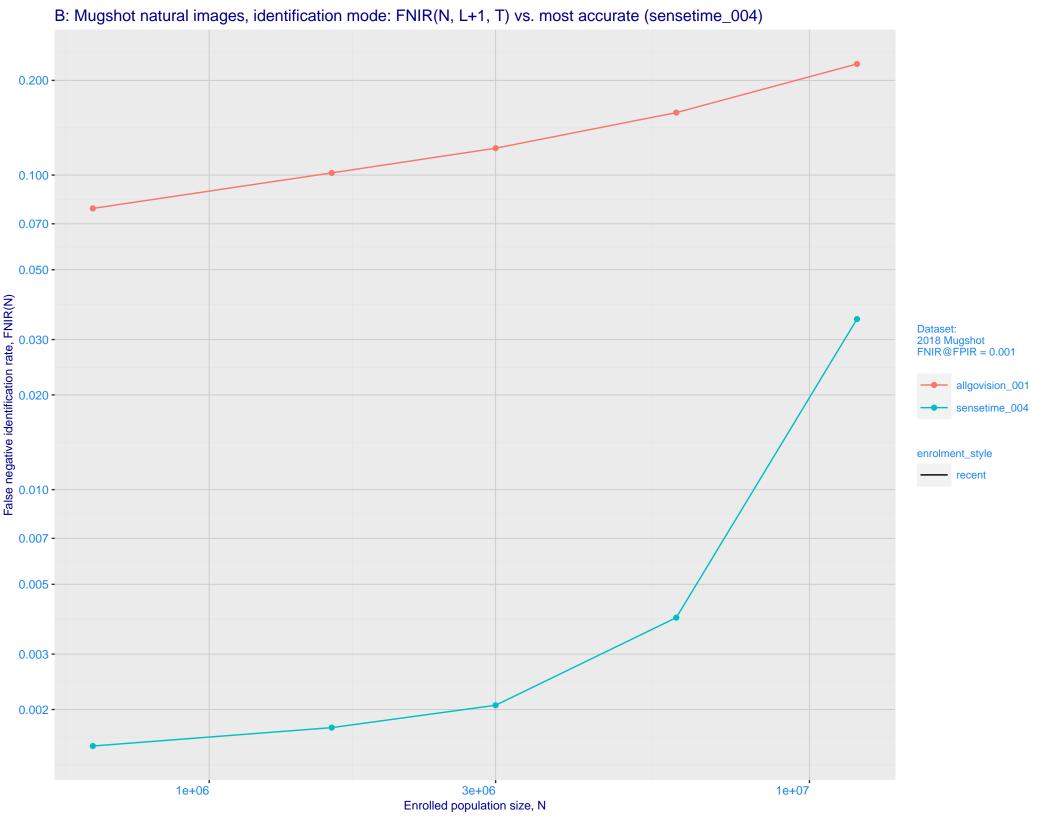
Frontal mugshot ranking 129 (out of 259) -- FNIR(1600000, T, L+1) = 0.1016, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

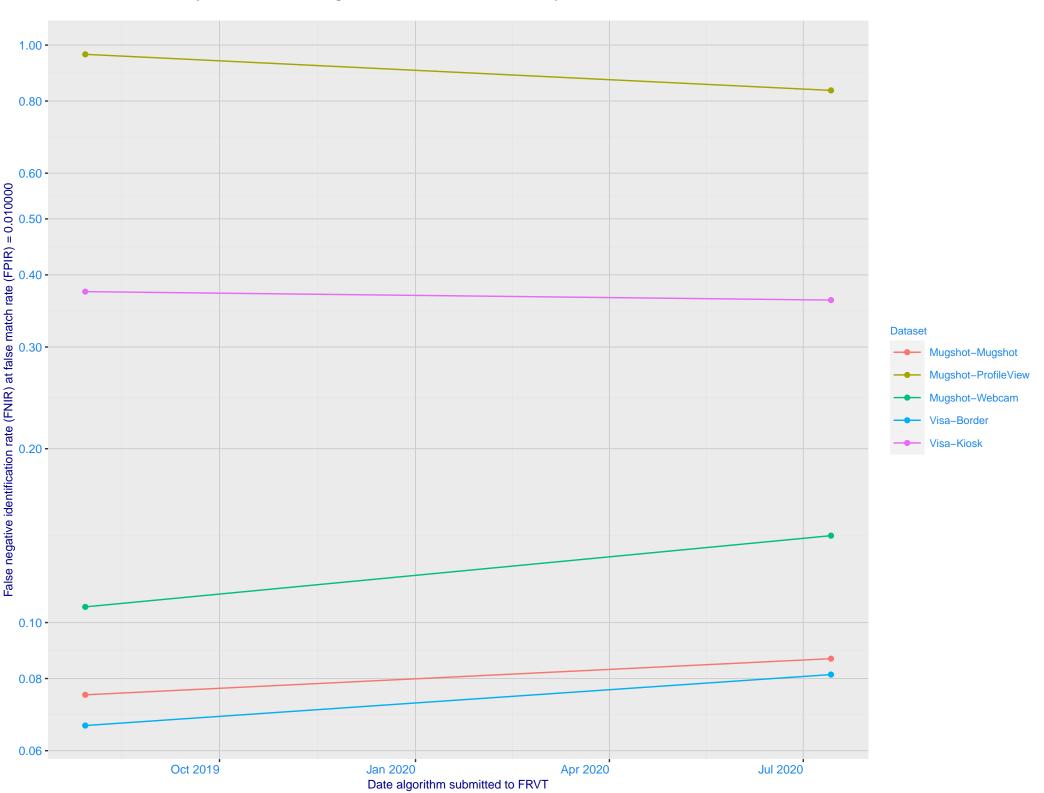
Mugshot webcam ranking 127 (out of 219) -- FNIR(1600000, T, L+1) = 0.2204, FPIR=0.001000 vs. lowest 0.0122 from sensetime_003

Mugshot profile ranking 66 (out of 189) -- FNIR(1600000, T, L+1) = 0.9857, FPIR=0.001000 vs. lowest 0.1733 from sensetime_005

Immigration visa-border ranking 72 (out of 139) -- FNIR(1600000, T, L+1) = 0.1503, FPIR=0.001000 vs. lowest 0.0059 from sensetime_004

Immigration visa-kiosk ranking 56 (out of 134) -- FNIR(1600000, T, L+1) = 0.4926, FPIR=0.001000 vs. lowest 0.1048 from sensetime_005

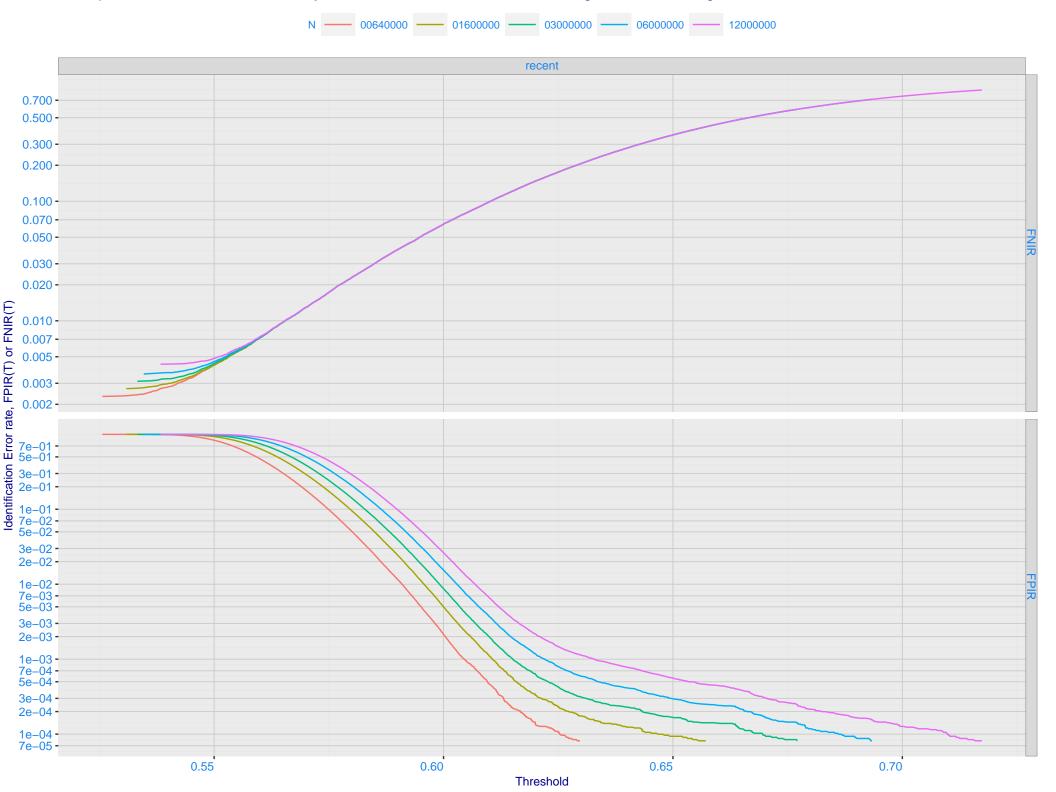




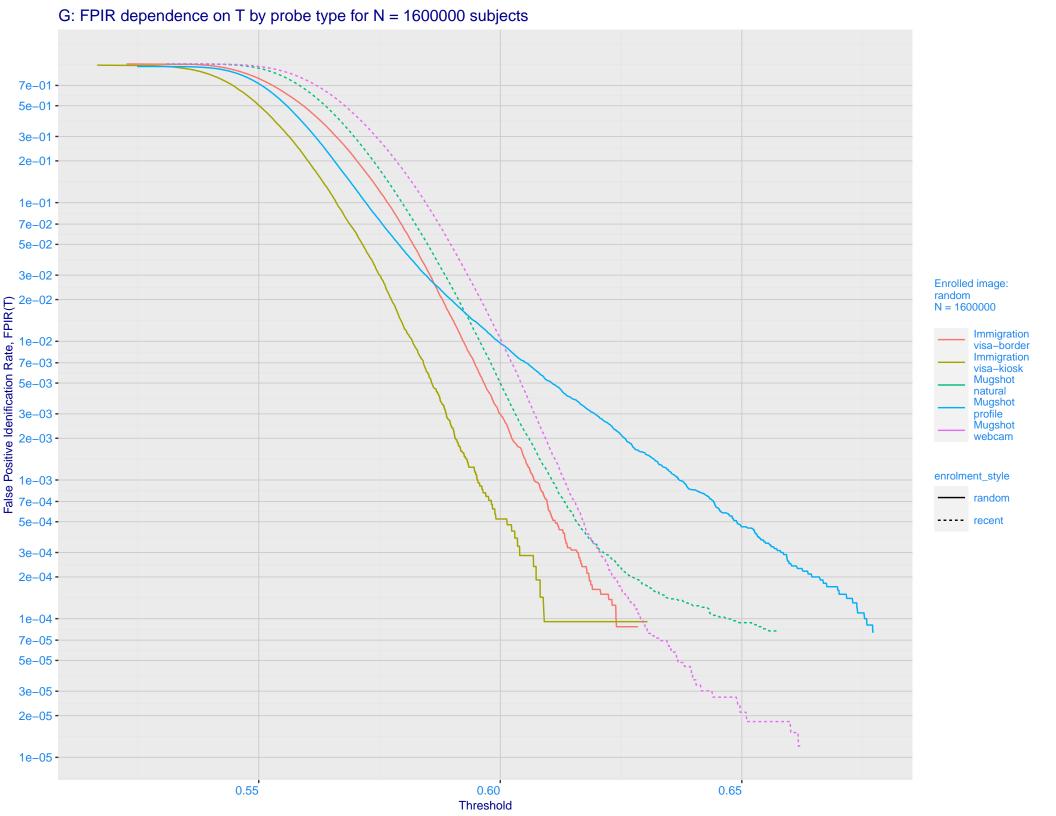
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals **Immigration Immigration** Mugshot visa-border visa-kiosk natural 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 -Ealse negative identification rate, FNIR(T) 0.002 - 0.002 - 0.000 - 0.500 - 0.500 - 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 -

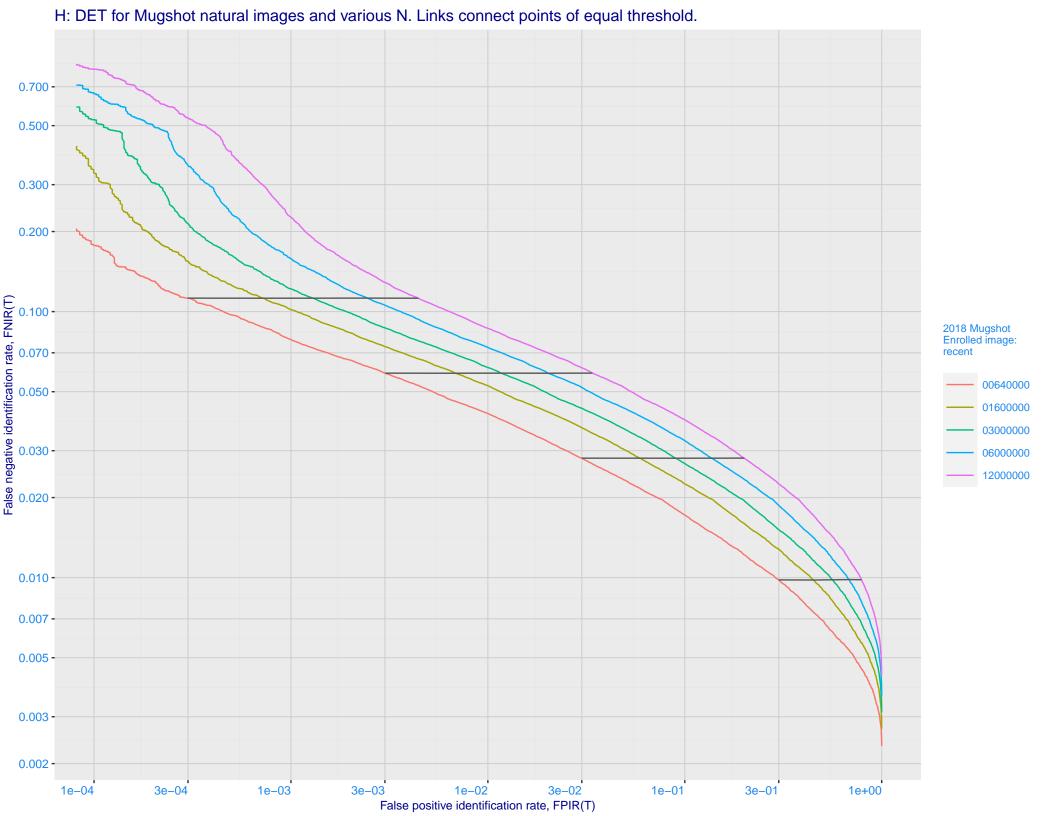
False positive identification rate, FPIR(T)

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

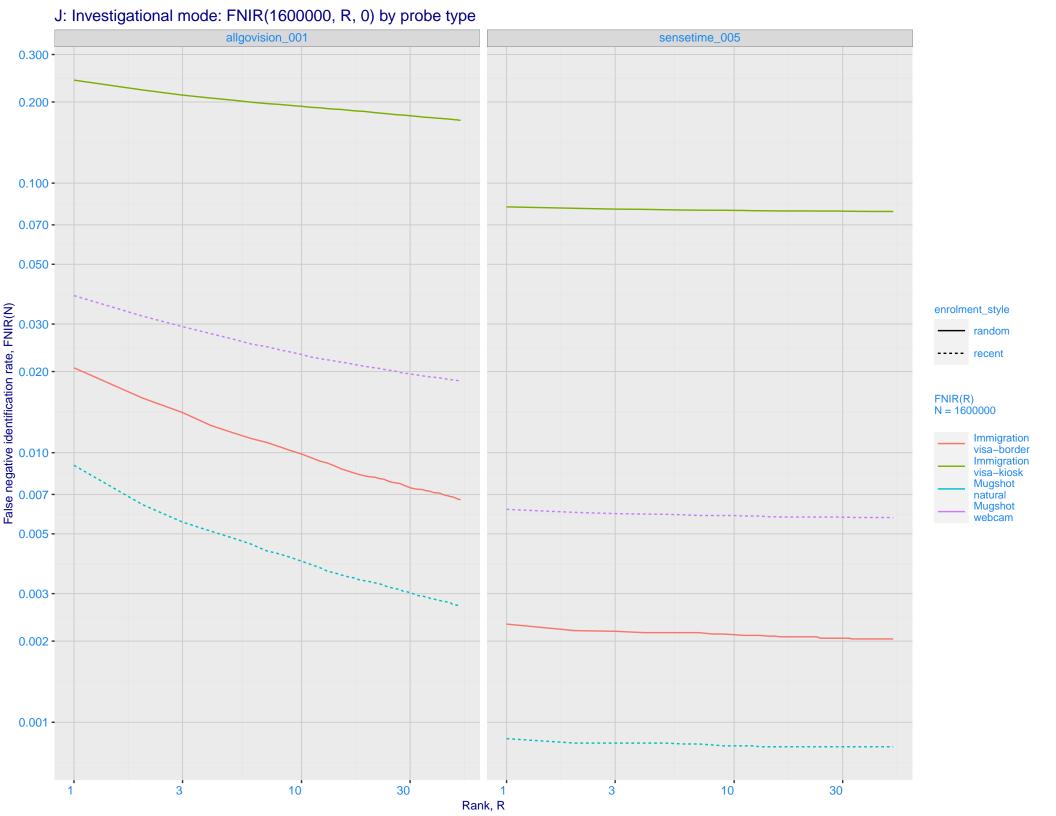


F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 -5e+01 -3e+01 -2e+01 -1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -3e-01 -2e-01 -1e-01 -7e-02 -5e-02 -3e-02 -3e-02 -1e-02 -**Enrolled images:** recent N = 1600000 Mugshot natural Mugshot webcam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

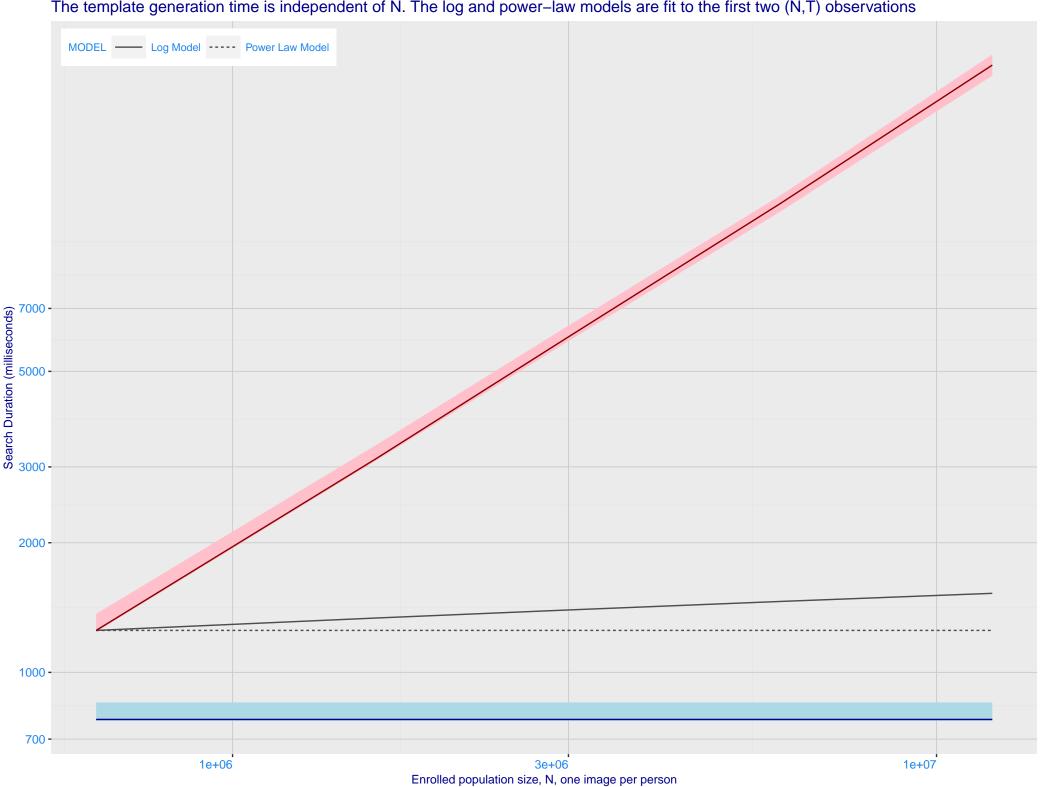




I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005) Immigration Immigration visa-kiosk visa-border 0.300 -• 0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 -0.005 -Palse negative identification rate, FNIR(N) 0.002 - 0.001 - 0.300 - 0.100 - 0.070 - 0. FNIR@Rank = 1 allgovision_001 sensetime_005 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



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



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



