A: Datasheet

Algorithm: microfocus_1

Developer: MicroFocus

Submission Date: 2018_02_16

Template size: 256 bytes

Template time (2.5 percentile): 419 msec

Template time (median): 530 msec

Template time (97.5 percentile): 634 msec

Investigation:

Frontal mugshot ranking 261 (out of 265) -- FNIR(1600000, 0, 1) = 0.5961 vs. lowest 0.0009 from sensetime_005

Immigration visa-border ranking 136 (out of 148) -- FNIR(1600000, 0, 1) = 0.7130 vs. lowest 0.0013 from visionlabs_010

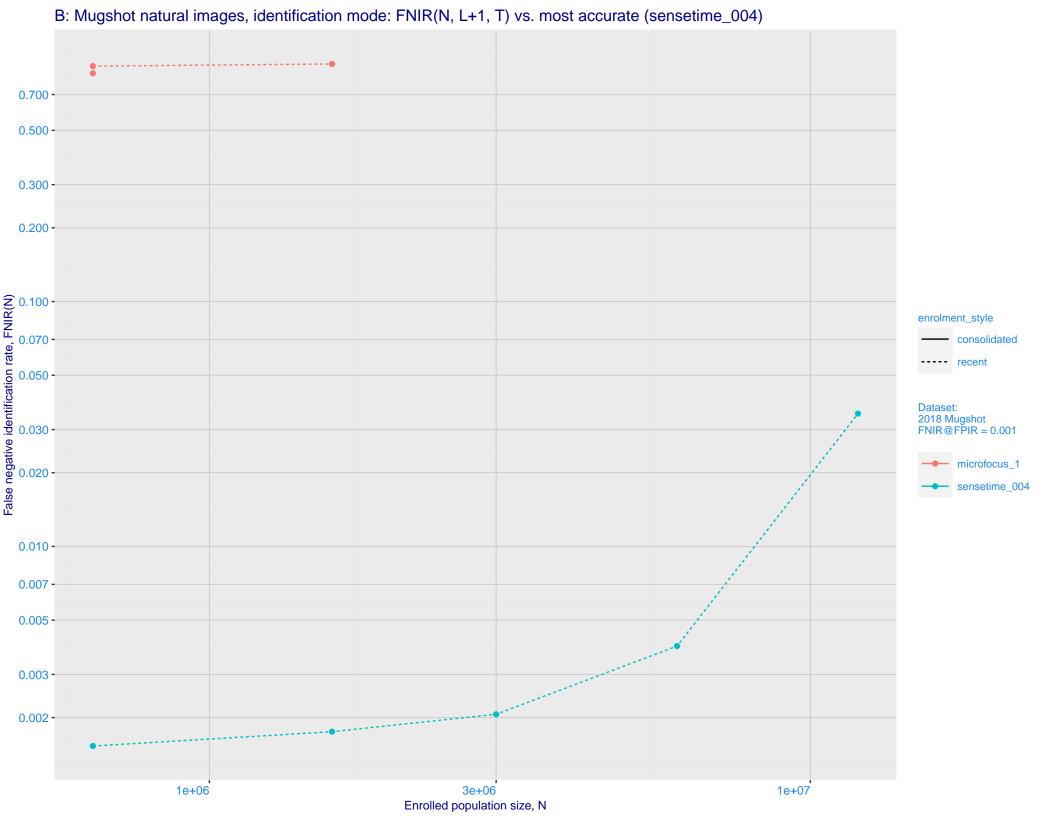
Immigration visa-kiosk ranking 139 (out of 145) -- FNIR(1600000, 0, 1) = 0.9121 vs. lowest 0.0568 from hr_000

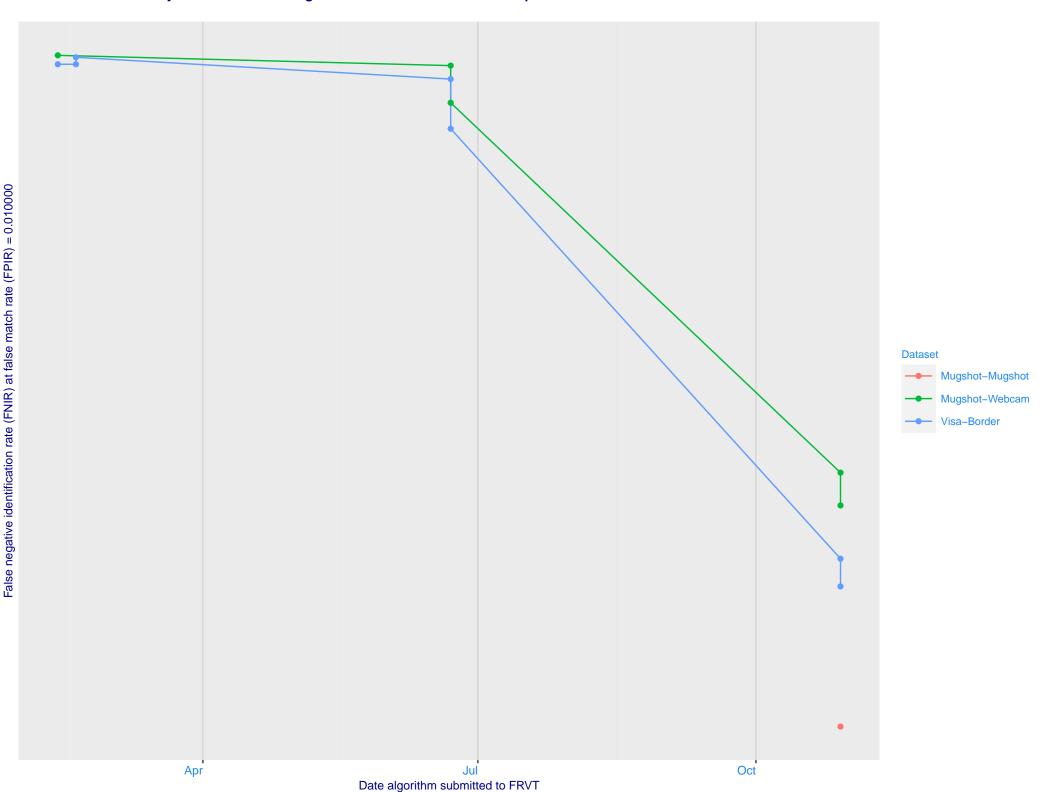
Identification:

Frontal mugshot ranking 252 (out of 265) -- FNIR(1600000, T, L+1) = 0.9332, FPIR=0.001000 vs. lowest 0.0018 from sensetime_004

Immigration visa-border ranking 132 (out of 146) -- FNIR(1600000, T, L+1) = 0.9844, FPIR=0.001000 vs. lowest 0.0049 from hr_000

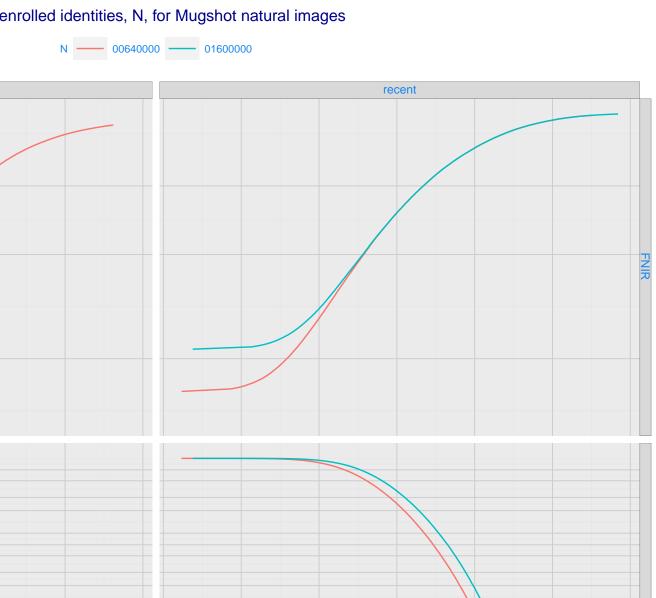
Immigration visa-kiosk ranking 109 (out of 141) -- FNIR(1600000, T, L+1) = 0.9328, FPIR=0.001000 vs. lowest 0.0996 from hr_000

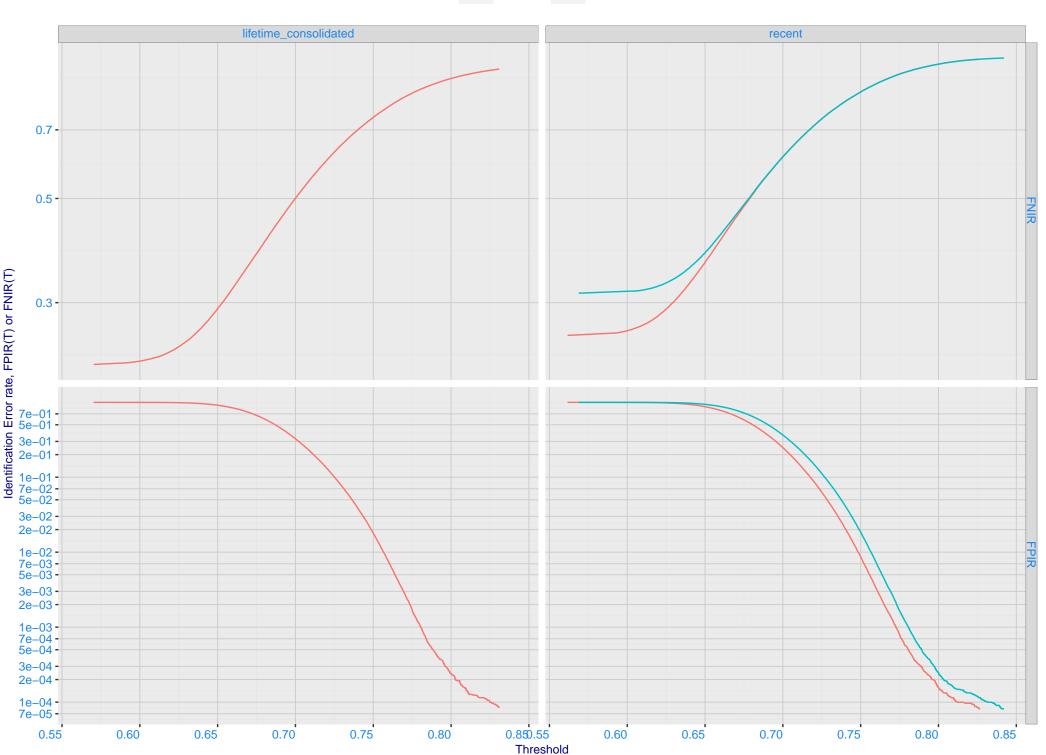




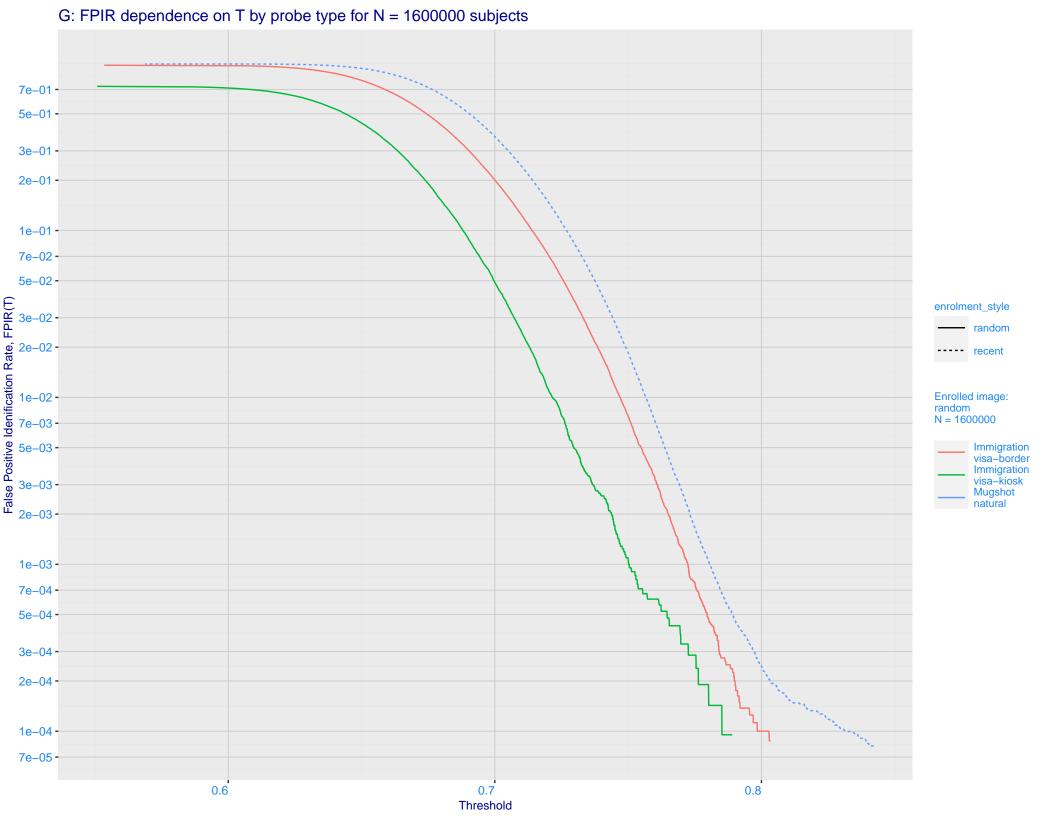
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-border visa-kiosk natural 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 - 0.005 - 0.002 - 0.002 - 0.001 - 0.001 - 0.500 - 0.300 - 0.200 enrolment_style random-ONE-MATE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

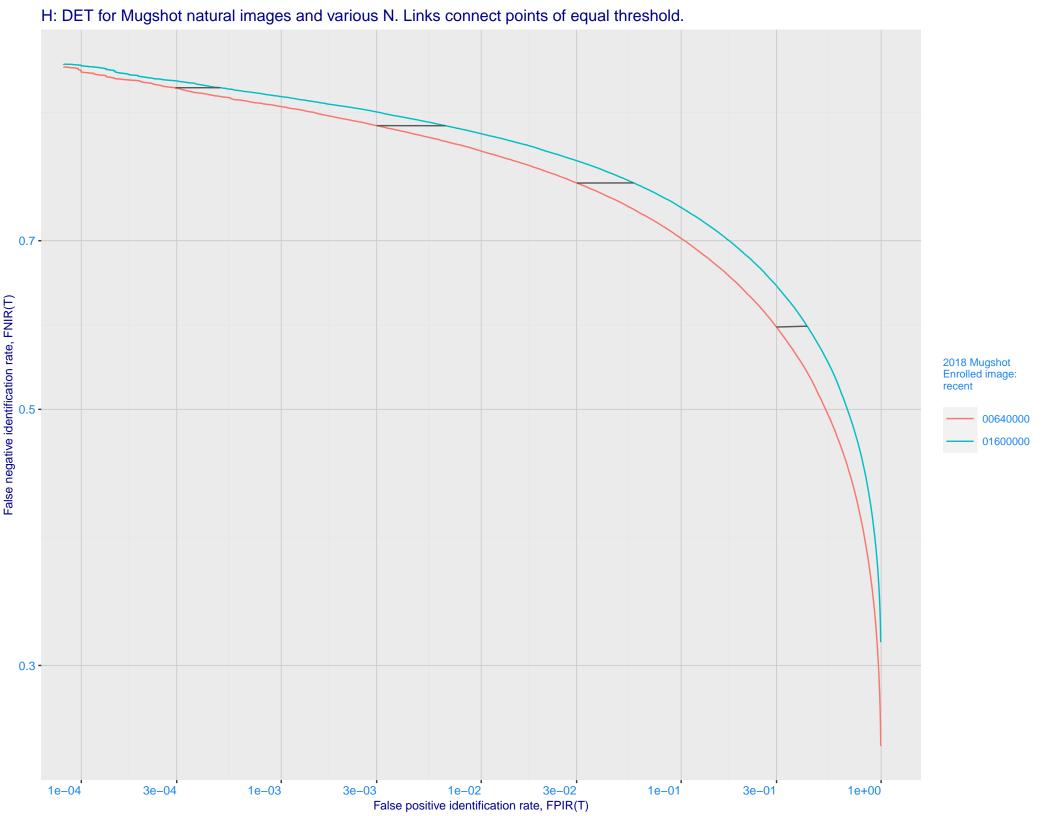
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



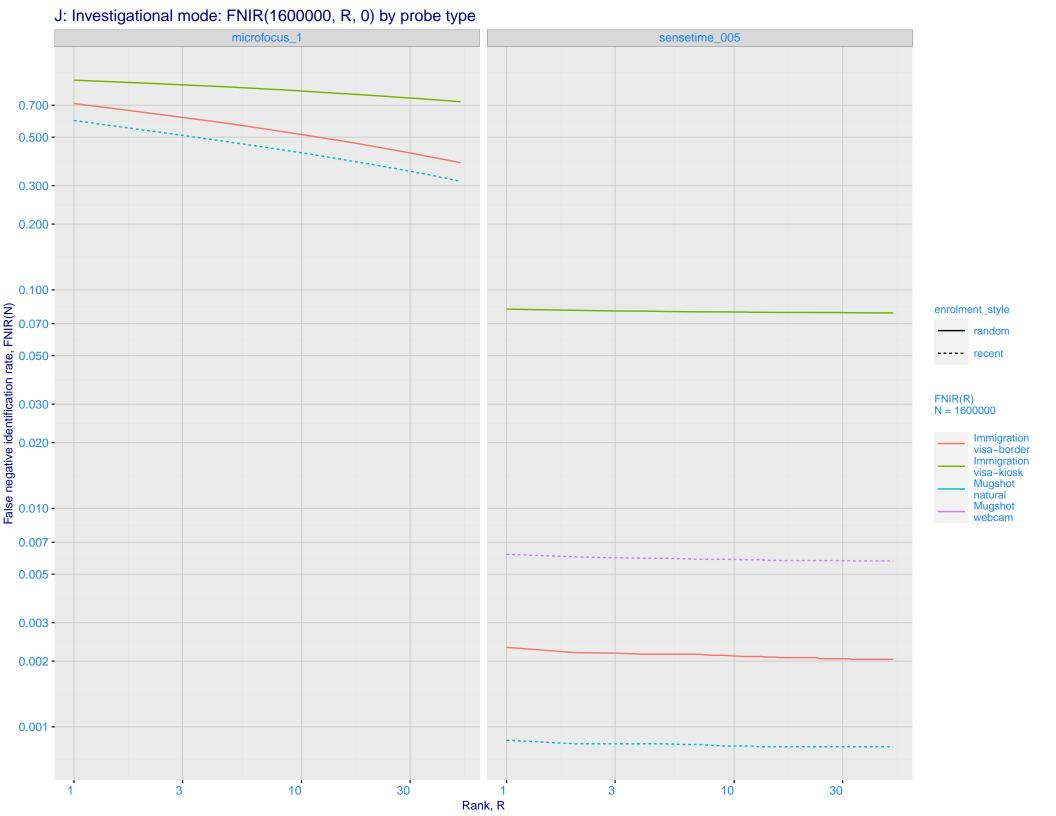


F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 -5e+01 -3e+01 -2e+01 -1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -Selectivity, SEL(T) 3e-01 - 2e-01 - 1e-01 - 2e-01 - 2e Enrolled images: recent N = 1600000 Mugshot natural 7e-02 -5e-02 -3e-02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

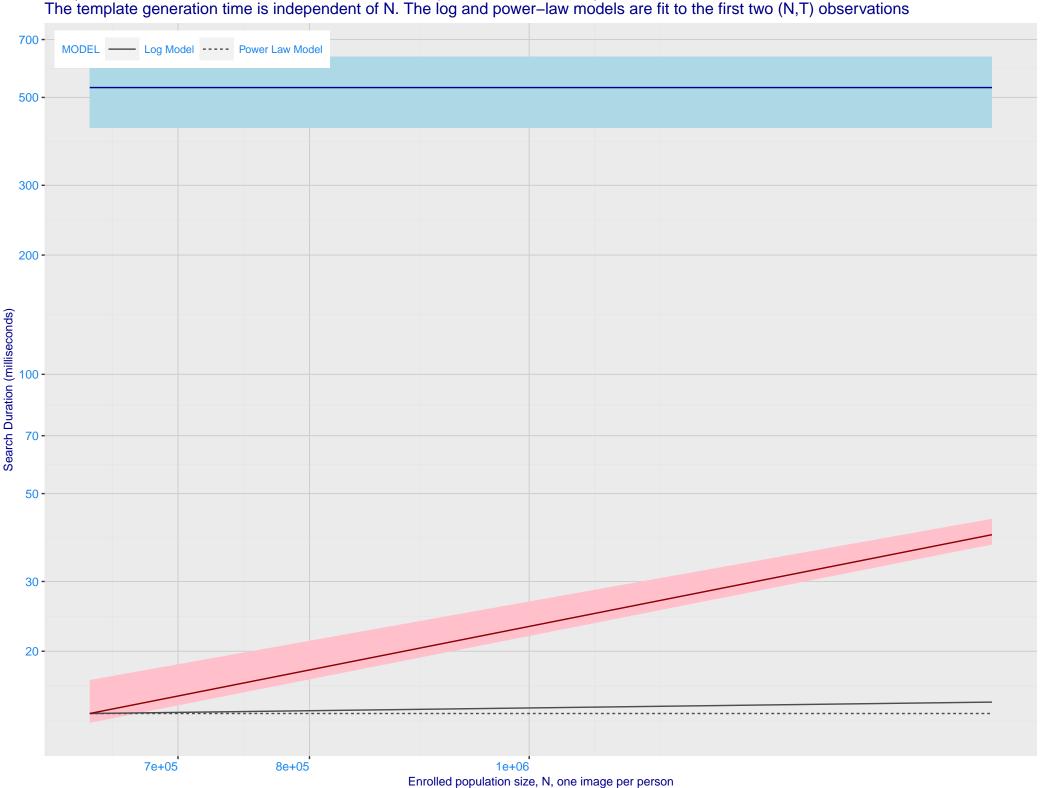




I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_005) Immigration **Immigration** visa-border visa-kiosk 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 -0.007 - 0.005 - 0.005 - 0.000 - 0.000 - 0.001 - 0.001 - 0.000 - 0.300 - 0.300 - 0.200 FNIR@Rank = 1 microfocus_1 sensetime_005 Mugshot webcam Mugshot natural enrolment_style consolidated ---- random --- recent 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



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



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



