## A: Datasheet

Algorithm: gorilla\_0

Developer: Gorilla Technology

Submission Date: 2018\_02\_01

Template size: 8300 bytes

Template time (2.5 percentile): 401 msec

Template time (median): 426 msec

Template time (97.5 percentile): 463 msec

Investigation:

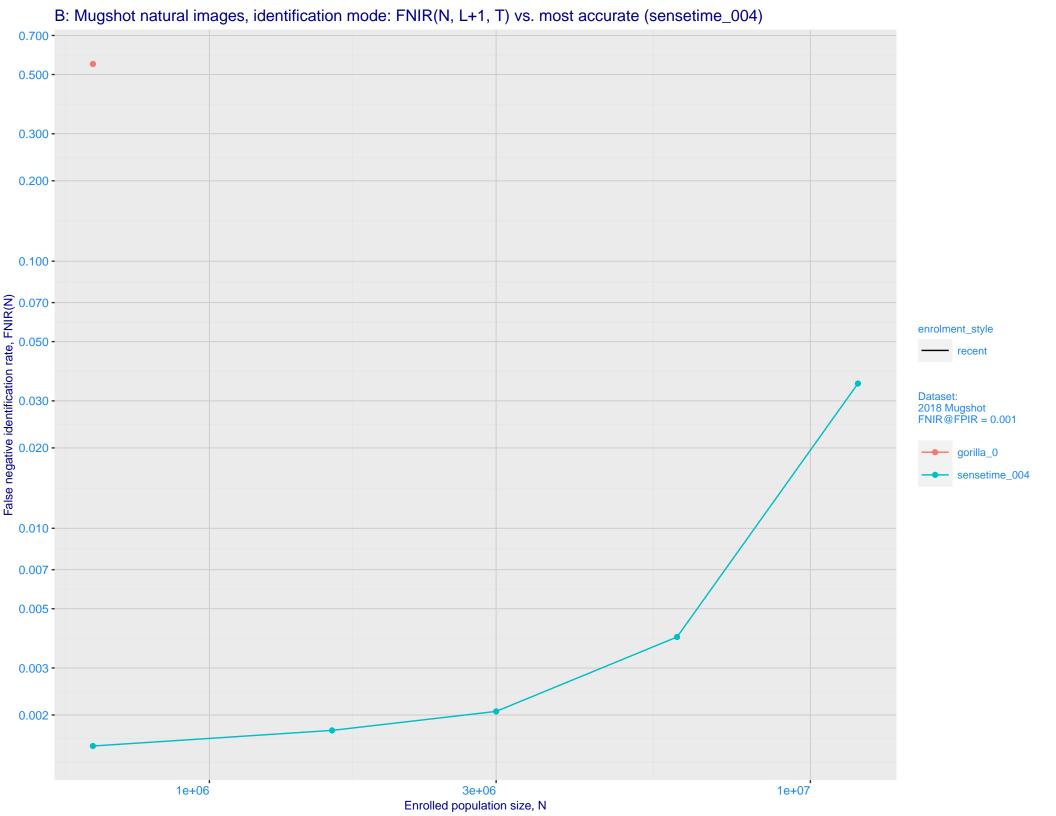
Immigration visa-border ranking 124 (out of 148) -- FNIR(1600000, 0, 1) = 0.3232 vs. lowest 0.0013 from visionlabs\_010

Immigration visa-kiosk ranking 128 (out of 145) -- FNIR(1600000, 0, 1) = 0.6668 vs. lowest 0.0568 from hr\_000

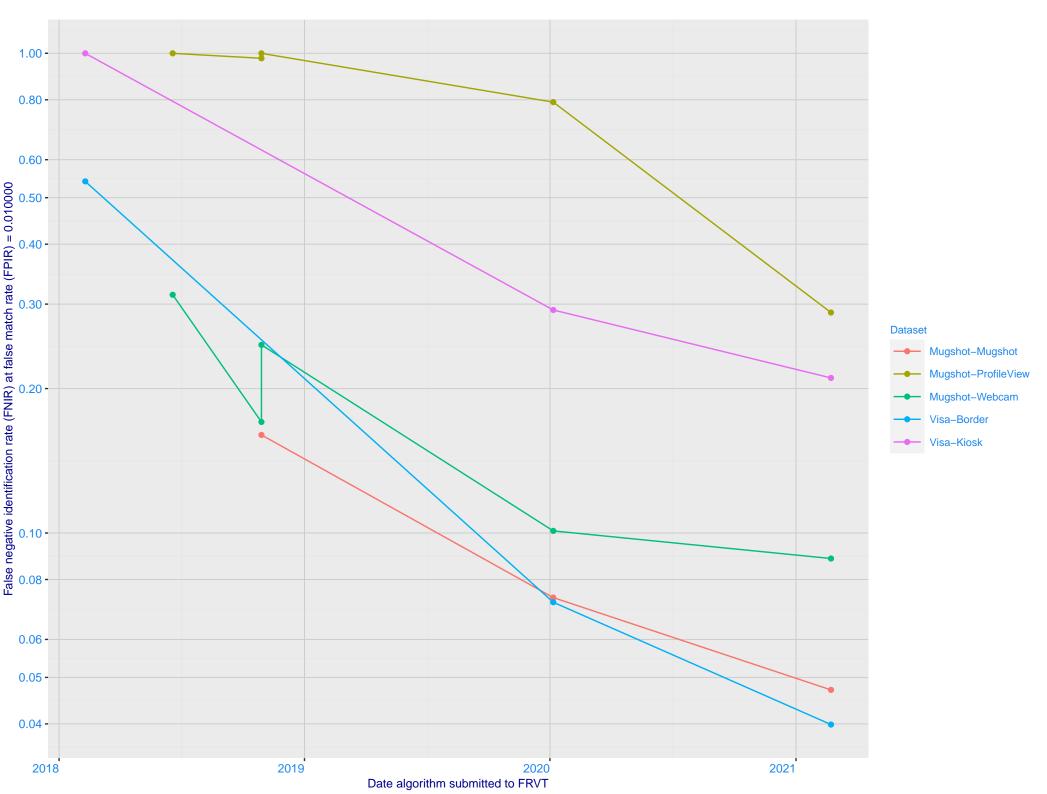
Identification:

Immigration visa-border ranking 116 (out of 146) -- FNIR(1600000, T, L+1) = 0.7373, FPIR=0.001000 vs. lowest 0.0049 from hr\_000

Immigration visa-kiosk ranking 136 (out of 141) -- FNIR(1600000, T, L+1) = 1.0000, FPIR=0.001000 vs. lowest 0.0996 from hr\_000



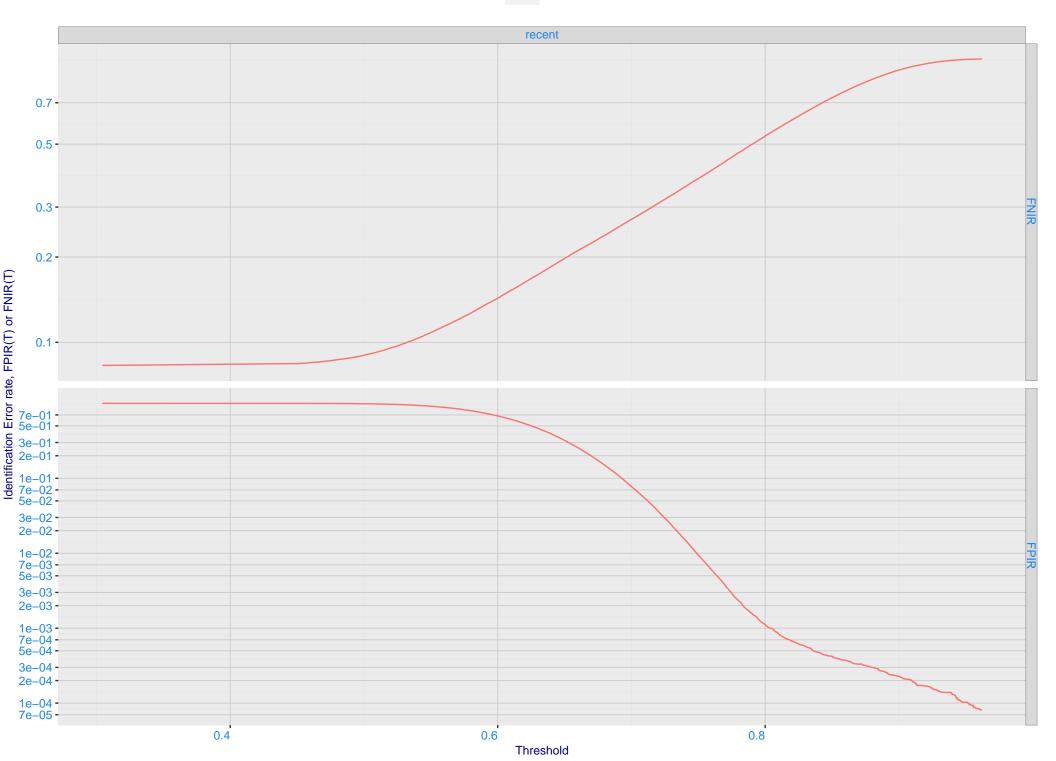
C: Evolution of accuracy for GORILLA algorithms on three datasets 2018 – present



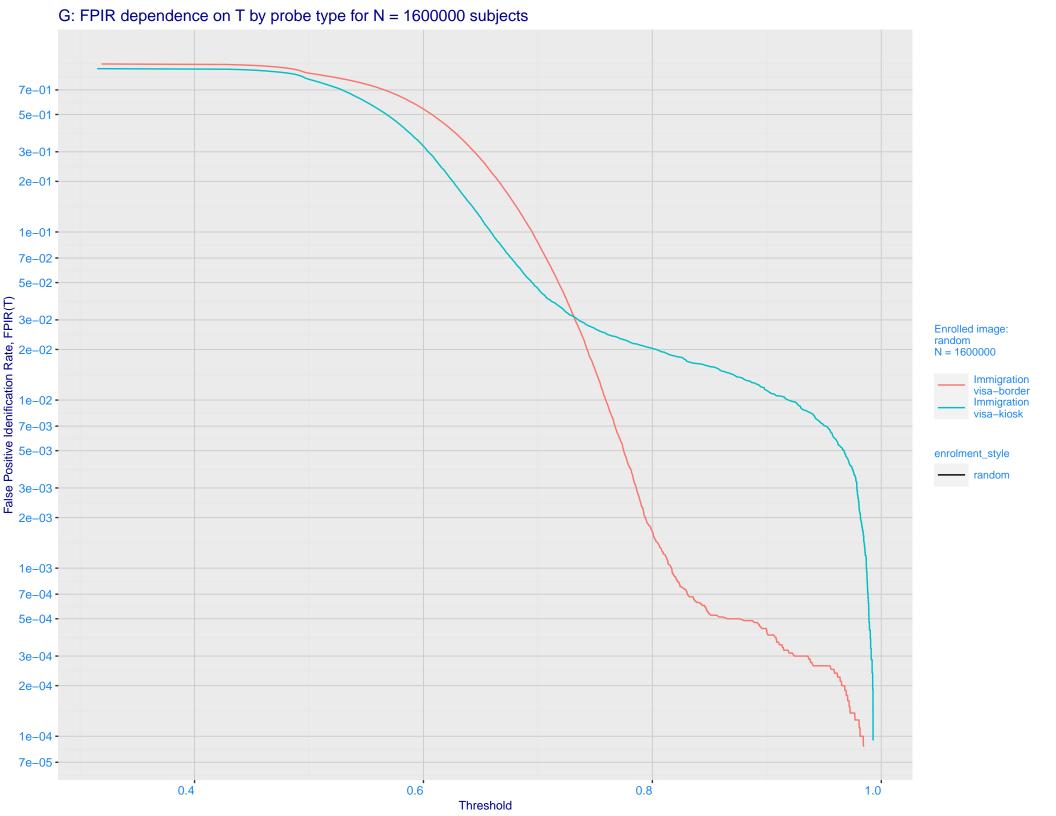
D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-border visa-kiosk natural 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 - 0.005 - 0.005 - 0.002 - 0.001 - 0.001 - 0.700 - 0.500 - 0.200 enrolment\_style random-ONE-MATE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

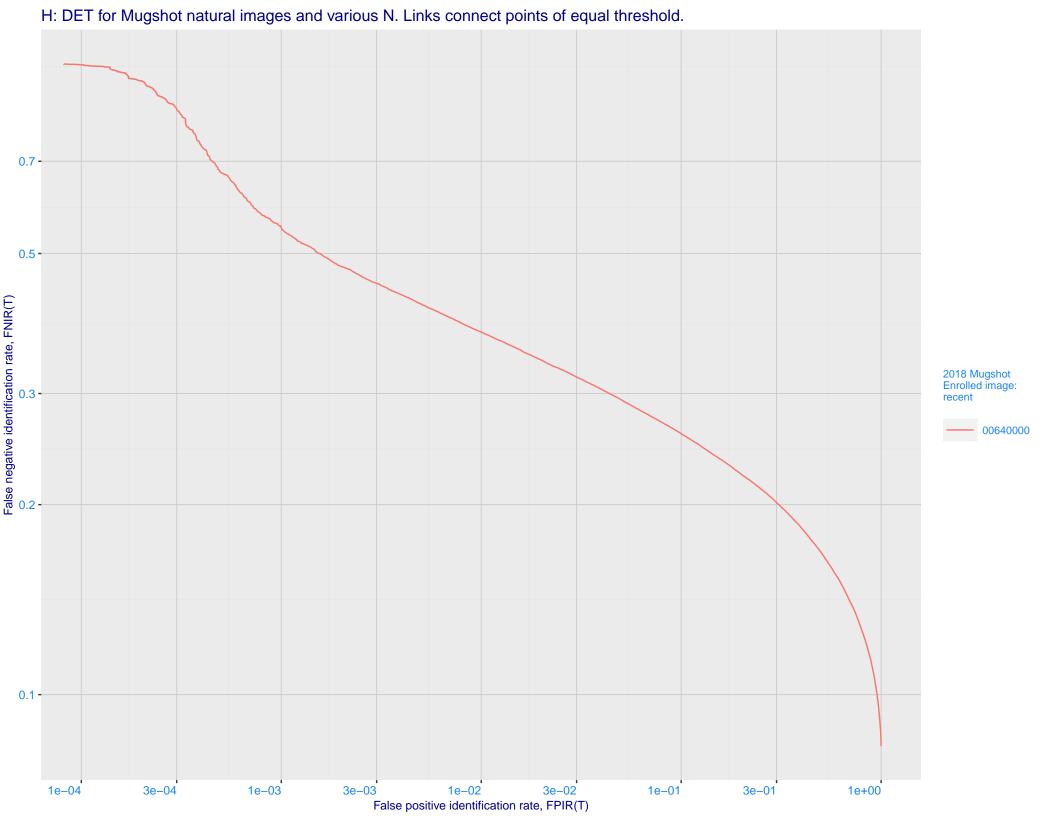
E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



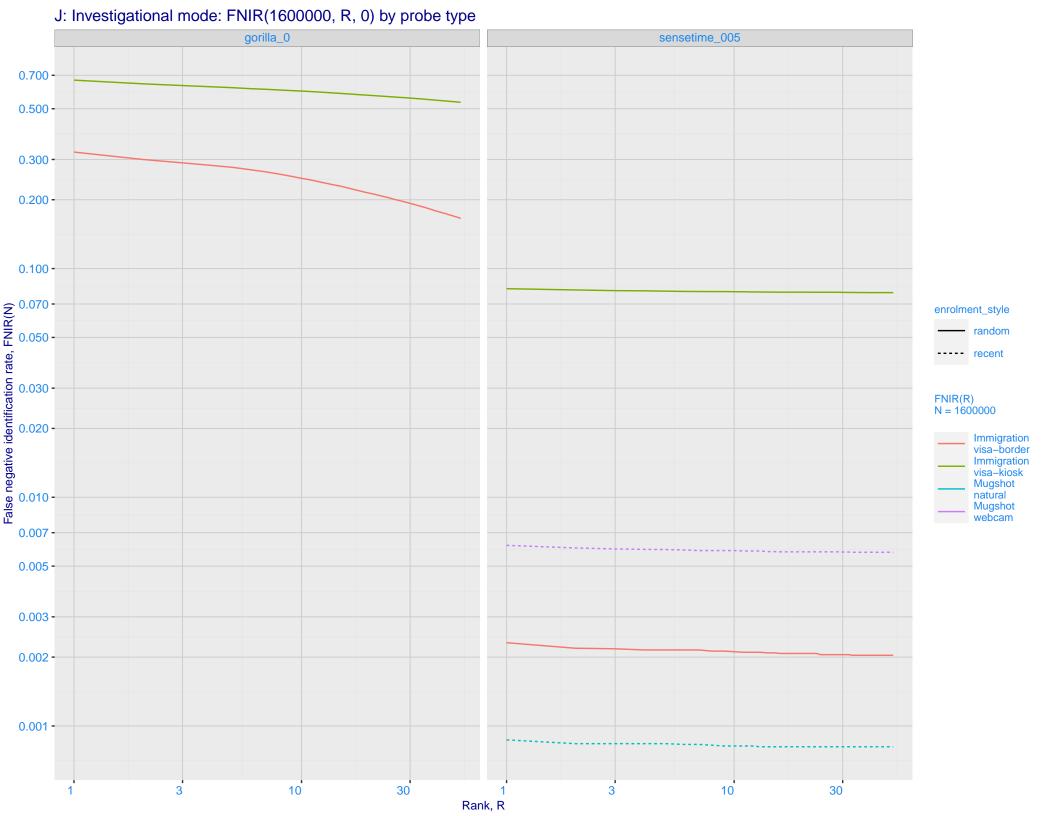




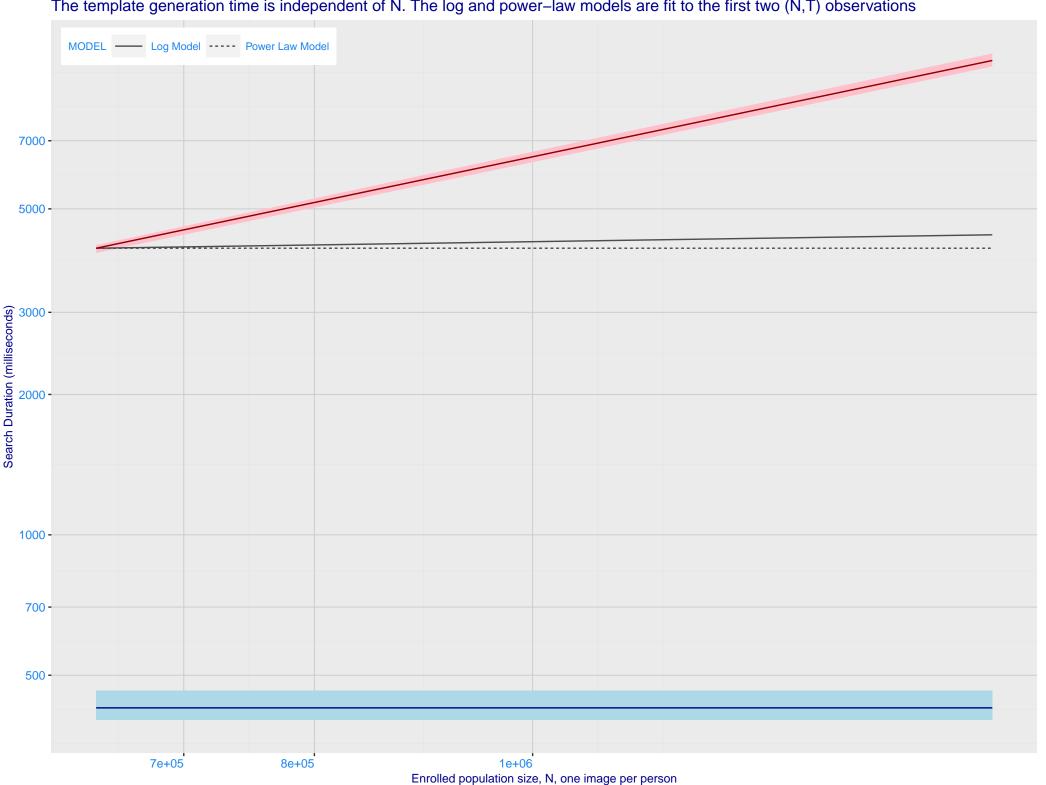




I: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime\_005) Immigration **Immigration** visa-border visa-kiosk 0.700 -0.500 -0.300 -0.200 -0.100 -0.070 -0.050 -0.030 -0.020 -0.010 -0.007 -0.005 -Ealse negative identification rate, FNIR(N) 0.003 - 0.001 - 0.500 - 0.500 - 0.200 - 0. enrolment\_style random ---- recent Mugshot Mugshot webcam natural FNIR@Rank = 1 gorilla\_0 sensetime\_005 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



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



