UBC W Benjamin Bloem-Reddy Beauty in Machine Learning: Fluency and Leaps University of British Columbia benbr@stat.ubc.ca Our method, Out of the lab MOHNSTR and into the world. is SOTA on untested hypothesis that trained MOHNSTR will Benchmark Net V4! perform well in deployment deployment Deployment is not compatible with training => (maybe) abductive Deployment is compatible reasoning applies: with training => inductive "It will likely perform well... reasoning applies: contrast P{Gen. error = Empirical + Complexity} > 1-8 Empirical + Complexity} > 1-8 Empirical + Complexity} > 1-8 The role of Deauty is in the leap. __ philosophical perspective >> see the paper in a nutshell: stronger leaps We should take inspiration from cognitive science and develop Processing fluency assumes three things: a compatibility signal. Key features: 1) system is compatible with data · meta - cognitive process that monitors processing fluency it might process Many deployed systems 2) internal signal indicating compatibility with data currently being processed · incorporates learning, higher-level processes like implicit structure lack reliable compatibility signals 3) higher compatibility ~ positive aesthetic learning and causal attribution (except failure)