## Gary Marcus, Psychology, NYU

Visiting Cognitive Scientist, Allen Institute for Brain Science Visiting Cognitive Scientist, Allen Institute for Artificial Intelligence Frequent contributor to <a href="NewYorker.com">NewYorker.com</a> (& sometimes WSJ)

- My research: Foundations of cognitive science, with an emphasis on language and analysis of computational models of cognition
- Open questions in my domain:
  - why are children better than machines at acquiring language?
  - what would it take to build machines with the flexibility of human reasoning?

## my opinion re: employment and automation

- should we be worried? definitely
- the only real issue is time, 20 years vs 100. many jobs will disappear over the next century
- once a particular task is automated (e.g., driving) the solution is readily copied, and an entire profession can quickly disappear
- unskilled labor (drivers), semiskilled (customer service reps) and skilled labor (bookkeepers, teachers, lawyers, doctors) are all at risk.
  Comedians are safe; scientists might be.
- the best argument against worry "new professions have always emerged before" — is a weak inductive argument, akin to predicting personal immortality on the basis of an unbroken string of days of continued life



Rubik's cube in 3.5 seconds

## BLS: top 10 occupations represent 80% of jobs

OCC_TITLE	TOT_EMP
Office and Administrative Support Occupations	21,355,350
Sales and Related Occupations	13,835,090
Food Preparation and Serving Related Occupations	11,546,880
Transportation and Material Moving Occupations	8,771,690
Production Occupations	8,594,170
Education, Training, and Library Occupations	8,374,910
Retail Sales Workers	8,326,900
Healthcare Practitioners and Technical Occupations	7,649,930
Food and Beverage Serving Workers	6,485,990
Business and Financial Operations Occupations	6,419,370
Management Occupations	6,390,430