DAWN FINZI

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EDUCATION

Stanford University   2017–Present
Ph.D. in Neuroscience, Minor in Computer Science - *GPA: 4.1*
Stanford Graduate Fellow in Science and Engineering
Mind, Brain, Computation and Technology Trainee

University of Oxford   2014–2015
M.Sc. in Psychological Research (Cognitive Neurology Research Group)
Oldfield Prize for Best Overall Performance, Distinction

Dartmouth College   2010–2014
B.A. in Psychology, Minors in French and Ethics - *GPA: 3.85/4.00*
Phi Beta Kappa, William Brewster Nickerson 1964 Psychology Prize, Phillips Family Award in Ethics,
Neukom Scholar Research Award

EXPERIENCE

PhD Candidate at Stanford University,   2017–Present
Departments of Psychology & Computer Science
Member of the Stanford Vision & Perception Neuroscience Lab (PI: Kalanit Grill-Spector) and the
Stanford Neuro AI Lab (PI: Dan Yamins)

Investigating the neural underpinnings of human visual perception and categorization. Using deep
learning models (supervised & unsupervised) to understand why the visual system is organized the
way it is and what we need to build into models in order to provide a better match to the brain.

AI Resident at X, the Moonshot Factory (formerly Google X),   2021
Early Pipeline Investigations
Worked on two confidential early-stage machine learning (ML) moonshots, one at the intersection of
neuroscience and AI and one in machine translation. Used reservoir computing to integrate connec-
tome information into ML models. Implemented structural attention mechanisms in large language
models. Awarded bonus from head of early pipeline for exceptional performance during residency.

Staff Research Associate at the University of California, San Diego,   2015–2017
Cognitive Neuroscience Laboratory
Designed, conducted, and analyzed research on the role of neural action stopping mechanisms in
task-switching; training suppression through real-time motor physiological feedback in children with
Tourette's Syndrome (collaboration with Cincinnati Children's Hospital).

TECHNICAL SKILLS

Experienced user of Python (including common libraries e.g. Pytorch, Tensorflow, Keras, scikit-learn,
scipy, numpy, matplotlib), MATLAB, and R. Some knowledge of JavaScript, C++.

SELECTED PUBLICATIONS

[1] **Finzi, D.**, Margalit, E., Kay, K.*, Yamins, D.L.K.*, & Grill-Spector, K.* (2022). Topographic
DCNNs trained on a single self-supervised task capture the functional organization of cortex into
visual processing streams. *Shared Visual Representations in Human and Machine Intelligence
(SVRHM) Workshop @ NeurIPS*. **Oral, Top 6 submissions**.

[2] **Finzi, D.**, Yamins, D.L.K., Kay, K., & Grill-Spector, K. (2022). Do deep convolutional neural
networks accurately model representations beyond the ventral stream? *Conference on Cognitive
Computational Neuroscience.*

[3] **Finzi, D.**, Gomez, J., Nordt, M., Rezai, A. A., Poltoratski, S., & Grill-Spector, K. (2021).
Differential spatial computations in ventral and lateral face-selective regions are scaffolded by
structural connections. *Nature Communications*, 12(1), 1-14.

[4] Poltoratski, S., Kay, K., **Finzi, D.**, & Grill-Spector, K. (2021) Holistic face recognition is an
emergent phenomenon of spatial processing in face-selective regions. *Nature Communications*,
12(1), 1-13.