

Mayank Agrawal

[Email](#) | [Personal Website](#) | [LinkedIn](#)

Strategic, pragmatic, and versatile researcher combining technical (machine learning, neuroscience, cognitive science) advances with storytelling and interdisciplinary teams to solve foundational scientific problems

Analytical project manager experienced in conceptualizing, developing, managing, and executing multi-year initiatives proactively catered to emerging trends

Seeking strategy/operations/product roles within small, dynamic, high-performing teams

Employment

Princeton University, Researcher (10+ publications, details on [Academic CV](#) and [Google Scholar](#)) 2018-

- **Computational Cognitive Neuroscience** (Supervisors: Jonathan D. Cohen, Ph.D. and Nathaniel D. Daw, Ph.D.)
 - Conceptualized landmark theory of cognitive fatigue, formulated idea into multi-year research proposal, and secured full financial support from the Department of Defense (> \$300,000) and partial support from the John Templeton Foundation (total: \$4,995,106)
 - Mobilized team of researchers to integrate machine learning (reinforcement learning; Python), web-based experiments (JavaScript, HTML, R), and neuroimaging (fMRI; Python, MATLAB) to formalize and evaluate the theory, leading to publications in [Psychological Review](#) (premier psychology journal) and multiple peer-reviewed conferences
 - Promoted theory and results by giving invited talks at universities (Harvard, McGill, Northeastern, Oxford) and national agencies (Army Research Office)
- **Explainable Artificial Intelligence** (Supervisor: Thomas L. Griffiths, Ph.D.)
 - Redesigned the scientific method for the modern age, combining black-box machine learning with notions of social responsibility (transparency, explainability), resulting in high-impact publications ([Science](#), [PNAS](#))
 - Leveraged success by formulating new, multi-year research proposal combining machine learning (neural networks; Python, TensorFlow, R) with online, large-scale behavioral experiments (JavaScript, HTML, MongoDB) in order to secure support from the National Science Foundation (\$125,142)
 - Communicated new paradigmatic vision through invited talks at universities (Michigan, Rice, Princeton) and scientific agencies (National Science Foundation) as well as media features ([The Guardian](#))

Kallyope, Computational Biology (Supervisor: Justin J. McManus, Ph.D.)

Summer 2017

- Formulated biological pipeline of protein development into code, leveraging machine learning (convolutional and recurrent neural networks) in order to predict possible proteins formed from any given genomic sequence
- Applied pipeline to company's proprietary data platform, identifying multiple novel mucins and defensins as well as two hormone candidates undergoing evaluation as potential therapeutic targets

Mercury Fund, Analyst (Supervisor: Dan Watkins, Ph.D.)

Summer 2016

- Performed technical due diligence on startups integrating life sciences with artificial intelligence, creating a visual landscape of the emerging ecosystem (vis-à-vis [this](#))

- Conceptualized and presented talks to fund’s partners and advisors about the fundamentals and future of artificial intelligence, machine learning, and data science
- Results and insights motivated the incubation of [Mercury Data Science](#), a data science consulting firm (originally for portfolio companies, recently more broadly)

Education

Princeton University , Ph.D. Psychology and Neuroscience	2023
Swarthmore College , B.A. Computer Science and Philosophy	2018

Selected Awards

– Cognitive Science Fellow, Princeton University	2021
– National Defense Science & Engineering Fellowship, Department of Defense	2019
– Philip Evans Scholar, Swarthmore College	2014

Miscellaneous

- Hobbies: Fitness (former: NCAA Cross Country, Track & Field; current: CrossFit), Cooking
- Causes: Educational Access (see: [Breakthrough Collaborative](#)), Mental Health Advocacy