

The Shanahan Family Foundation Fellowship

The Fellowship Experience and How to Apply

Overview

3-year program for recent Ph.D.s to explore complex data in neuroscience at the Allen Institute and University of Washington

Neuroscience experience not needed—we're seeking applicants with expertise in computer science, data science, engineering, mathematics, physics, and other quantitative fields

Designed to provide increased freedom to explore a new research area and data of interest, through the Allen Institute's vast [data banks](#). Includes a discretionary fund for each fellow.

Participation in the 2-week Summer Workshop on the Dynamic Brain course on San Juan Island

Mentorship from leading Allen Institute and UW investigators. Fellows are hired as an Allen Institute employee with a competitive salary and benefits package

The Fellowship Experience

The goal of the fellowship is to provide opportunities in neuroscience to non-traditional applicants who can bring new perspectives into the field. While most postdoctoral fellowships favor applicants with years of domain expertise, the Shanahan Fellowship was created to encourage applicants from diverse technical backgrounds to explore the brain and its workings. The goal is to give promising young scientists the freedom to pursue the data and research they find intriguing.

No neuroscience experience is required to apply (non-neuroscience backgrounds are, in fact, encouraged). The fellowship has been purposefully designed to give fellows the time and mentorship needed to get up to speed in a new field—working closely with their mentors at the Allen Institute and UW to understand the challenges and opportunities in neuroscience datasets. The Allen Institute's vast [data banks](#) range from molecular, genomic, transcriptional, physiological, morphological, anatomical to functional whole-brain level in the brains of mice, non-human primates, and humans.



Introduction to the field begins with training on our datasets at the Summer Workshop for the Dynamic Brain, tours of the Allen Institute labs (where fellows observe the pipeline-style data collection methods that lead to our unique, standardized data), and networking with leaders in both experimental and computational science at the Allen Institute, UW computational Neuroscience Center, and UW eScience center. Fellows will then develop novel research projects which push the boundaries of both data and neuroscience with independence in selection and focus of research direction.

Fellows are officially employed at the Allen Institute with competitive salary and benefits as a Scientist I, with affiliations at the University of Washington. Reimbursements are available for some relocation and immigration expenses. The fellowship kicks off in August each year with the Summer Workshop on the Dynamic Brain, a two-week summer course hosted by UW and the Allen Institute in the beautiful San Juan Islands outside of Seattle. Within their first year, fellows will identify two mentors: one at the Allen Institute and a co-mentor at UW.

Co-mentors work with fellows to design a research project on our datasets that the fellows will execute for the remainder of their fellowships. Mentors are there to guide and inform the fellows' choice of research, but the research direction is up to the fellow. Unlike other postdoctoral programs, where the mentor or PI may dictate project priorities, the Shanahan Fellowship was designed to give the fellows freedom to pursue their own interests. To support this freedom even further, each fellow receives a \$10k discretionary fund each year that they can use for conferences, computer equipment, software, or other resources they choose to prioritize.

Fellows will not be alone. There is a growing peer community of other Shanahan Fellows, with three new fellows accepted each year for the 3-year program. The Summer Workshop on the Dynamic Brain is mixed with other non-Shanahan Fellows, and fellows are invited to participate in community events at the University of Washington's eScience Institute and the UW Computational Neuroscience Center. Throughout the three years of the fellowship, fellows will be supported in developing a network in the neuroscience field and sharing their progress with peers at conferences, such as the annual Neural Computation and Engineering Connection event, Cosyne, NeurIPS (formerly NIPS), and the Society for Neuroscience. Each fellow will have the opportunity to



mentor a fully funded UW undergraduate or postbaccalaureate research assistant who helps with their research for 3-12 months.

Collaborating Institutes

The Allen Institute is unique in its ability to produce vast datasets on the brain (see our existing [datasets and other resources](#)). We have invested in the infrastructure and pipelines needed to produce standardized, reproducible survey-styled data on biology's most complex system. Since 2003, Allen Institute neuroscience teams have generated large-scale, cutting-edge brain atlases and datasets to advance the field and our knowledge about the brain.

Neuroscientists at the Allen Institute are at the forefront of the field, bringing our unique principles of Big, Team and Open Science to bear on the challenge of understanding the brain and, ultimately, what it means to be human. Together with our collaborators at the UW Computational Neuroscience Center and eScience Institute, we provide quantitative scientists with the ideal opportunity and resources to mine for novel insights and discoveries in the field of neuroscience.

The UW [eScience Institute](#) and [Computational Neuroscience Center](#) are home to experts in data science and neuroscience, who have expertise in theory, computation, and data analysis to help scientists unravel the complexities of the brain. Affiliation with UW will give the fellows an existing interdisciplinary community of 'UW Data Science Postdoctoral Fellows', where they will be invited to engage in a suite of career and community building activities.

Shanahan Family Foundation

The Shanahan Family Foundation's mission is to empower people and accelerate scientific discovery. Since its inception in 2007, the [Shanahan Family Foundation](#) has made numerous significant gifts to organizations and institutions nationally. Their goal in creating the Shanahan Fellowship was to "... create the opportunity for fresh perspectives to join neuroscience. This fellowship is intended to give upcoming leaders in quantitative fields the opportunity to uncover new insights in the massive neuroscience datasets produced by the Allen Institute."

Eligibility Criteria

Applicants must be scientists with a Ph.D. (or equivalent) or who will have completed their Ph.D. by the start of the fellowship program. The Ph.D. should have been awarded in the last 3 years.

The fellowship is appropriate for Ph.D.s in a quantitative field such as computer science, electrical engineering, physics, mathematics, or biology. They should have a strong background in statistical, computational, machine learning, or other data science methods, or who will have completed their Ph.D. by the start of the fellowship program. Ph.D. should have been awarded in the last 3 years. Up to three fellows will be selected each year. International applicants are eligible to apply.

One goal of the fellowship is to build a network of collaborators, as such, priority will be given to applicants who are not currently postdoctoral fellows or scientists at the University of Washington or the Allen Institute.

We believe high-quality science can only be produced when it includes different perspectives. We are building an environment of diversity and inclusion and encourage people from all backgrounds (technical and cultural) to apply for this fellowship.

Application Materials

- A curriculum vitae from the applicant
- Two (2) Letters of support from your mentor or other professors and scientists
- A one-page personal statement from the applicant describing their history, activities, and interests as an individual (especially those outside of science) which may give the committee a greater sense of you as a person and your ability to simultaneously interact with and challenge traditional scientific fields.
- A two- to three-page research statement from the applicant describing their prior research, interests in applying data science to the field of neuroscience, potential research interests (including tools they are familiar with) and how this fellowship aligns with their career goals.



How to apply

Submit application materials to [Submittable](#) by February 15th, 2023. Final decisions made in April / May 2023.

Questions? Please reach out to shanahan.fellow@alleninstitute.org