PERSONAL INFORMATION

Applicant ID: 1000154259

Prefix: Ms.

First Name: Jean

Middle Name:

Suffix:

Last Name: Fan

Previous Last Name 1:

Previous Last Name 2:

Gender: Female

Veteran Status: No

Race: Asian

Ethnicity: Not Hispanic or Latino

Disability: No

Other Disability:

Mailing Address

Permanent Address

Date and Place of Birth

Citizenship: US Citizen

If permanent resident alien, date status was granted:

High School Location

EDUCATION AND WORK EXPERIENCE

Education

List colleges or universities attended and your enrollment details.

College/Univ.	City	State	Country	Start Date	Completion Date	Degree	Award Date	Major	Graduate Course Information		
									Sem. Hrs.	Qtr. Hrs.	Dept.
JOHNS HOPKINS UNIVERSITY	Baltimore	MD	US	08/2009	05/2013	BS	05/2013	Engineering - Biomedical			

Other Experience

List fellowships, scholarships, teaching, and work experiences relevant to your field of study since entering

college/university. Experiences do not have to be limited to the academic realm. (Up to but no more than five are recommended.)

Title	Institution/Organization	Start Date	End Date
Teaching Assistant	Johns Hopkins University	08/2012	
Summer Research Fellow	Harvard-MIT Health Sciences and Technology	06/2012	08/2012
Research Intern	Institute for Computational Medicine, Johns Hopkins University	08/2009	05/2012
Research Intern	Institute for Computational Medicine, Johns Hopkins University	08/2012	

List your significant academic honors, publications, and presentations that are not listed above.
PUBLICATIONS
> Fan, J., Yu, Y., Meltzer P.S., & Cao, L. Delineating the Role of BRF2 in Breast Cancer Pathogenesis. HURJ: 14, 53-55. (2011)

PRESENTATIONS
> Fan, J. & Sunyaev, S. Detecting Synergistic Epistasis in Humans. Bioinformatics and Integrative Genomics Harvard-MIT HST i2b2 Summer Conference. Boston, MA. (2012)
> Fan, J. & Karchin, R. Computational Assessment of the Utility of Limiting Orthologous Sequence Depth in Mutation Impact Prediction Performance. 12th International Congress of Human Genetics/61st Annual Meeting of the American Society of Human Genetics. Montreal, Canada. (2011)
> Fan, J. & Karchin, R. Computational Assessment of the Utility of Limiting Orthologous Sequence Depth in Mutation Impact Prediction Performance. JHU BME Undergraduate Research Day. Baltimore, MD. (2011)
> Fan, J. & Karchin, R. Improving computational models of the biological consequences of mutation through limiting the phylogenetic distances of orthologous sequences. Provost?s Undergraduate Research Poster Session. Baltimore, MD. (2011)

AWARDS
> The Harvard-MIT Division of Health Science and Technology BIG Award; For successful completion of the 2012 Summer Institute in Bioinformatics and Integrative Genomics; Received Summer 2012 at Harvard Medical School, Boston, MA
> The Johns Hopkins University Provost's Undergraduate Research Award Certificate of Achievement; For overall quality and creativity of research proposal on Improving computational models of the biological consequences of mutation through limiting the phylogenetic distances of orthologous sequences and in recognition of outstanding achievements in research; Awarded Summer 2011, Received May 1, 2012 at Johns Hopkins University, Baltimore, MD
> Johns Hopkins University Dean's List; For academic excellence; Received Fall 2009, Spring 2010, Fall 2010, Spring 2011, Fall 2011, Spring 2012 at Johns Hopkins University, Baltimore, MD
> Posse Scholarship Semi-Finalist; For extraordinary academic and leadership potential; Received Spring 2009 at Rockville, MD
> The County Council of Montgomery County Maryland Proclamation; In recognition of Jean Fan on her impressive achievements and extends its best wishes as she continues in her chosen field; Received March

3, 2009 at the Montgomery County Council, MD

> Intel Science Talent Search Semi-Finalist; For outstanding scientific research on Delineating the Role of BRF2 in Breast Cancer Pathogenesis; Received Spring 2009 at Montgomery Blair High School, Silver Spring, MD

> Siemens Competition Semi-Finalist; For remarkable scientific research on Delineating the Role of BRF2 in Breast Cancer Pathogenesis; Received Spring 2009 at Montgomery Blair High School, Silver Spring, MD

Additional Graduate School Information

Are you or have you been in a five-year joint baccalaureate-master's degree program? No

Are you or have you been in a four-year joint baccalaureate-master's degree program? No

Baccalaureate Institution:

Current Institution:

PROPOSED GRADUATE PROGRAM

Proposed University or College: Harvard University

Proposed Program: Bioinformatics and Integrative Genomics

City: Cambridge

State: MA

Country: United States

Primary Field of Study: Engineering - Biomedical

Tentative Panel Name:

Department: Division of Medical Sciences

Is your proposed graduate program interdisciplinary? Yes

Primary Field of Study: Engineering - Biomedical 85 **% of program**

Other Field of Study: Comp/IS/Eng - Informatics 5 **% of program**

Other Field of Study: Comp/IS/Eng - Data Mining and Information Retrieval 5 **% of program**

Other Field of Study: Comp/IS/Eng - Machine Learning 5 **% of program**

What is the highest level degree toward which you expect to work while on your fellowship tenure? (Your answer will be used for statistical purposes only and will not be seen by the selection panel.)

Degree: Doctoral Degree

REFERENCES

List names and organizational affiliations of individuals submitting Reference Reports (at least three references are required to submit the application).

Last Name	First Name	MI	Organization	Email Address	Ref. Rank	Status
Karchin	Rachel		Johns Hopkins University	rachel.karchin@gmail.com	1	Unsubmitted
Bader	Joel		Johns Hopkins University	joel.bader@jhu.edu	2	Unsubmitted
Sunyaev	Shamil		Brigham and Women's Hospital/Harvard Medical School	ssunyaev@rics.bwh.harvard.edu	3	Unsubmitted
Fishkind	Donniell	E	Johns Hopkins University	def@jhu.edu	4	Submitted

PERSONAL STATEMENT ESSAY

Describe any personal, professional, or educational experiences or situations that have contributed to your preparation and desire to pursue advanced study in science, technology, engineering, or mathematics. Describe your leadership potential, and how you see yourself currently or in the future contributing to research, education, and innovations in science and engineering. Discuss your career aspirations and some goals you hope to achieve. Note: The personal statement is not a repeat of your research statement. What is important is the content, not the length.

NSF Fellows are expected to become globally engaged knowledge experts and leaders who can contribute significantly to research, education, and innovations in science and engineering. The purpose of this essay is to demonstrate your potential to satisfy this requirement. Your ideas and examples do not have to be confined necessarily to the discipline that you have chosen to pursue. Remember that reviewers read all three essays. Please avoid repeating information provided in one essay in the other essays, while ensuring that your essays collectively address Intellectual Merit and Broader Impacts. Applicants must address explicitly each criterion in their written statements in order to provide reviewers with the information necessary to evaluate the application with respect to both Criteria. Please refer to the Program solicitation for further information on the NSF Merit Review Criteria (examples of Broader Impacts activities).

Document Uploaded: Yes

PREVIOUS RESEARCH ESSAY

Describe any scientific research activities in which you have participated, such as experience in undergraduate research programs, or research experience gained through summer or part-time employment or in work-study programs, or other research activities, either academic or job-related. Explain the purpose of the research and your specific role in the research, including the extent to which you worked independently and/or as part of a team, and what you learned from your research experience. Describe how you disseminated your results (i.e. conference, symposium, publication). In your statement, distinguish between undergraduate and graduate research experience. If you provided a complete list of publications and presentations in the Education and Work Experience section of the application, it is acceptable to list the highlights of your publication and presentation record in this essay. Any list of publications and presentations included in this essay counts towards the page limit of this essay.

If you have no direct research experience, describe any activities that you believe have prepared you to undertake research.

Document Uploaded: Yes

PROPOSED RESEARCH ESSAY

In a clear, concise, and original statement, present a complete plan for a research project that you plan to pursue during the Fellowship Tenure.

Your statement should demonstrate your understanding of research design and methodology and explain the relationship to your previous research, if any.

Format: Introduction and problem statement, hypothesis, methods to test hypothesis, anticipated results or findings, expected significance and broader impacts, and a short list of important literature citations. If you have not formulated a research plan, your statement should include a description of a research topic that interests you and how you might conduct research on that topic.

In addition to review of the Intellectual Merit and Broader Impacts of your proposal, research topics discussed in your proposed plan must be in fields within NSF's mission.

Document Uploaded: Yes

Proposed Research Title

The title should be brief and informative. It should describe in succinct terms your proposed research, reflecting the contents of your proposal. Use key words, and do not use abbreviations and chemical formulas(in 255 characters or less). This title will be used for searching research topics using the key words you supply.
Proposed Research Title: A Bayesian Network Approach for Assessing Factors in Complex Disease Etiology

Use key words to describe the proposed research (in 50 characters or less).
Short Research Title: bioinformatics, machine learning, genomics, model,

Is the proposed research expected to have a significant international component?: Yes
Country: Worldwide

NSF GRFP PROGRAM INFORMATION

Study is considered "completed" when a term/semester/quarter is finished and grades have been assigned. Mark the choice that most appropriately describes your stage of graduate study. All of your graduate study must be counted, except graduate-level courses taken as an undergraduate or courses currently in progress (i.e., Fall 2012 Term). All courses completed as of August 1, 2012 should be counted. Applications are grouped and reviewed by level during the panel evaluations.

Senior completing a baccalaureate degree. I am in my final year of a baccalaureate program and will have completed the program before Fall 2013, or I have received my baccalaureate degree and have never been enrolled in a graduate program, or I am in the fourth year of a five-year joint baccalaureate-master's degree program.

Interruption in Study: Applicants who have completed more than twelve months of graduate study and who have not earned a graduate degree may be considered eligible if they have had an interruption in graduate study of at least two consecutive years prior to November 2012. To be eligible, applicants must have completed no additional graduate study following the interruption in graduate study. If you selected "more than 12 months of completed graduate study" in the completed study section, you must submit an eligibility essay describing the extenuating circumstance.
Document Uploaded: No

NSF publishes the names, the baccalaureate, proposed graduate and current institutions, and the fields of study of Fellowship recipients and Honorable Mention List on FastLane.
Do you wish your name to be published on the Honorable Mention List, posted at https://www.fastlane.nsf.gov/grfp/?: Yes

Do you wish your email address to be published on the Fellows List or Honorable Mention List, posted at https://www.fastlane.nsf.gov/grfp/? Please be aware that NSF has no further control over the use or dissemination of publicly posted information on the NSF website.: Yes

Please indicate how you learned about the NSF Graduate Research Fellowships (check all that apply).
Poster: No
Faculty Member or Mentor: Yes
Friend/Other Student: Yes
College/University Administration: No
Internet Website: No
Conference/Workshop/Presentation: No **Specify:**
Other: No **Specify:**

If you have applied for any other fellowships this year, please select them from the following list. NSF is interested in this information for statistical purposes only. Submission of the requested information is voluntary and is not considered during the review process. If a particular fellowship is not in the list, select 'Other (please specify)' and specify the other fellowships in the box provided.

The Graduate Research Fellowship may not be accepted if the individual accepts or is supported by another federal graduate fellowship.
Fellowships: Dept of Energy, Ford Foundation Fellowship, Hertz Fellowship, NDSEG Fellowship, Other (please specify)
Other Fellowships: The Paul & Daisy Soros Fellowships for New Americans