



Apple Scholars in AI/ML

2022 PhD Fellowship Nomination Guidelines

July 2021. For invited universities.

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Introduction

Apple Scholars in AI/ML PhD fellowship program

The Apple Scholars in AI/ML PhD fellowship program recognizes the contributions of emerging leaders in computer science and engineering at the graduate and postgraduate level. The PhD fellowship in AI/ML was created as part of the Apple Scholars program to support the work of outstanding PhD students from around the world, who are pursuing cutting edge research in machine learning and artificial intelligence.

At this time, we are only able to review applications from students enrolled full time at invited university. While you may share it with relevant departments at your university, **please do not share these guidelines outside of your university.**

Important Dates

A link to the nomination portal will be sent out on Monday, August 30.

Nomination window opens: Monday, August 30, 2021

Nomination window closes: Thursday, September 30, 2021

Decision announced: All nominees and nominating universities will hear back regarding the status of their nominations by January 2022.

Apple Scholars in AI/ML PhD fellowship: Award Details

The fellowship award is comprised of a generous monetary gift, mentorship, and potential internship opportunities.

All monetary gifts are directed towards the nominating university and disbursed annually at the beginning of each academic year, and are conditional upon the Scholar's full time enrollment in their program.

The award of the Apple Scholar in AI/ML PhD fellowship does not represent an employer/employee relationship between Apple and the receiving university and/or selected student.

Universities receive the following in support of their selected Scholar(s):

North America

The monetary award will be directed to the nominating universities in the form of an unrestricted gift to fully support the nominee(s) selected, disbursed annually.

Please confirm with your university development or corporate relations office that they are willing to accept this gift structure before nominating students.

- Gift amount covering full tuition and fees (enrollment fees, health insurance) for (2) academic years
- \$40,000 USD gift each year to help with living expenses and related expenses
- \$5,000 USD gift each year to support research-related travel and associated expenses

United Kingdom, Europe, Australia

The monetary award will be directed to the nominating universities in the form of an unrestricted gift to fully support the nominee(s) selected, disbursed annually.

Please confirm with your university development or corporate relations office that they are willing to accept this gift structure before nominating students.

Award amounts will vary by country.

- Generous stipend for (2) academic years to help with living expenses and related expenses
- \$5,000 USD travel grant each year to support research-related travel and associated expenses

Asia-Pacific (Mainland China, Hong Kong, Japan, Korea, Singapore)

The monetary award will be provided in an annual gift structure determined directly with the university, either as a sponsored research agreement or an unrestricted gift.

- \$30,000 USD stipend each year to help with living expenses and related expenses
- \$5,000 USD gift each year to support research-related travel and associated expenses

Scholars will also receive:

- 2 year mentorship with an Apple researcher
- Internship opportunities for one or both summers of their fellowship*
- Invitation to the PhD Scholars Summit in Cupertino, CA**

** Internship offers are dependent on student status, and contingent upon necessary requirements for employment being met according to relevant employment law.*

***Due to evolving travel restrictions related to COVID-19, the Summit will be postponed until it is safe for all Scholars to travel internationally.*

Nomination Guidelines

We believe that technology for everyone should be made by everyone, and that research is strengthened by a diversity of perspectives and lived experiences. We aim to create an inclusive and equitable nomination process that amplifies underrepresented voices in the research community.

With that in mind, invited schools may nominate students per the following guidelines.

Nomination Rules

Invited institutions may nominate up to **(3)** PhD students pursuing research relevant to the research areas listed in the nomination guidelines.

We strongly encourage institutions to use at least **(1)** of the slots to nominate students who identify as a member of a traditionally underrepresented group in the technology industry.

An individual nominee's underrepresented group status will not be collected in the application, and applications will be reviewed based solely on the strength of the submitted materials.

What is an underrepresented group, and how is it defined?

An underrepresented group is typically defined as a group whose representation in a particular context is significantly lower than their group size in the wider population. In the US, the term underrepresented minority (URM) is used, and in the US technology industry it generally refers to those who identify as Black, Hispanic, Native American, Native Hawaiian, or Pacific Islander. Other underrepresented groups in the technology industry include women and non-binary individuals.

Underrepresented groups or minorities may be defined differently by other industries and in other locations, and can change over time.

We leave it to the university and nominees to interpret and define "traditionally underrepresented group" within their own regional and cultural context.

Eligibility

Nominees must meet the following criteria to be considered:

- Nominee must be enrolled full time at the nominating university at the start of Fall 2022, and expect to be enrolled through the end of the 2023/2024 academic year
- Nominee should be entering their last 2-3 years of study as of Fall 2022
- Nominee must not hold another industry-sponsored full fellowship while they are an Apple Scholar in AI/ML (Fall 2022 to Summer 2024)

Decision Criteria

Nominations are reviewed and selected based on the strength and relevance of the research proposal, the impact the nominee has had on the field thus far (both as a researcher and community citizen), and their demonstrated potential as a leader and collaborator in the field.

When reviewing the research proposal, we consider the following:

Novelty and relevance of the proposal, scientific merit of the proposed approach, potential for impact, and alignment with research areas highlighted by Apple.

We also consider, in addition to the aforementioned research acumen, the unique perspective and experience each nominee brings to the field.

Required Materials

Universities should submit the following materials for each student's nomination:

- Student CV and publication list
- Research Abstract (*200 word maximum*)
- Research statement covering past work and proposed direction for next 2 years (*5 page maximum, including citations*)
- 2 letter of recommendation, one from current advisor (*1 page maximum per letter*)
- Link to most recent published work (*optional*)

Please also prepare to submit the **estimated tuition and fees** (including enrollment, health insurance, and books) for the nominee's 2022-2023 academic year (or PhD student salary / bursary stipend, if regionally appropriate).

The amount entered will be used for planning purposes only, and will not impact final Scholar selection.

Privacy Policy

- Nomination packet materials should not contain confidential or proprietary research.
- Remove or redact birth date and/or photographs of the nominee if they appear on submitted materials.
- All information submitted by your institution will only be used by Apple for the purposes of conducting the PhD Fellowship in AI/ML program, and will at all times be handled in accordance with [Apple's Privacy Policy](#).

Research Areas

Nominees should be pursuing research in one or more of the following research areas. The subtopics listed under each research area are not meant to be exhaustive or prescriptive, but rather highlight areas of particular interest to Apple.

When entering a nomination, the nominator will be asked to select up to **(2)** research areas that the nominee feels are most aligned with their work.

Privacy Preserving Machine Learning

Federated Learning, Differential Privacy, Cryptographic Tools, Secure Multiparty Computation

On-Device Machine Learning

Model Compression, Model Representation, Hardware/Software Integration, Model Personalization, Efficient On-Device Inference, Efficient Continuous Learning

Human-Centered Machine Learning

Social Signal Processing, ML for Multimodal Interaction, ML Design and Human Factors, Usable ML Tools and Products, Interactive ML

AI for Health and Wellness

ML and RL for Mobile Health, Time Series Representation Learning, Physiology-Informed Machine Learning, Modeling Multi-Modal Sensor Data

AI for Accessibility

Accessible User Experiences, Automatic Personalization/Adaptation, interactions via New or Combined Modalities, Participatory Design with People with Disabilities

AI Ethics and Fairness

Bias and Fairness in AI, Interpretable AI, Introspection

Speech and Natural Language

Speech Recognition, Text to Speech, Conversational and Multi-Modal Interactions, Machine Translation

Knowledge Graph Generation and Database Systems

Knowledge Extraction and Information Retrieval, Knowledge Inference, Large-Scale Graph Data Management, Machine Learning and Data Systems Integration

AI for Autonomous Systems

Reinforcement Learning, Imitation Learning, Multi-Output Models, Imbalanced Data

Augmented Reality and Computer Vision

3D semantic scene understanding, SLAM and Relocalization, Neural Network Architectures for 3D, Computational Photography and Videography, Visual Representative Learning, Active Sensing

Fundamentals of Machine Learning

Deep Learning, Reinforcement Learning, Unsupervised & Self-Supervised Learning, Optimization, Interpretability, Large-scale ML

AI for Industrial Intelligence

Hardware Aware AutoML, Few-Shot Learning, Weakly-Supervised / Semi-Supervised Learning

Internships

Students selected to be Apple Scholars will be notified in late December / early January, at which time we will discuss internship offers for 2022.

However, Apple recognizes that all nominees are potentially outstanding candidates for internships, and we welcome the opportunity to explore ways to work with each of them beyond the fellowship program.

With this in mind, all of our nominees will be invited to apply for a summer internship at Apple once their nomination is submitted, so that they can immediately enter consideration for a summer 2022 internship with Apple.

Nominees interested in applying for an internship should do so ideally *after* their nomination and *before Friday, October 8*. (*If they apply before they are nominated, we encourage them to let us know at aiml_scholars@apple.com.*)

This is optional. Nominees may choose to **not** apply for an internship at the time of nomination, and instead wait to see if they are offered a fellowship. This will not impact their chance at the fellowship.

Once a nominee applies for an internship, the internship application review process will begin as usual while fellowship nominations are still being reviewed. These processes will happen separately.

Participation in the internship interview process, which may begin before fellowship awards are announced, does not preclude a nominee from accepting a fellowship offer if extended, and should not be considered an indication of whether a nominee will or will not be selected for a fellowship.

If a student is named an Apple Scholar and:

- a) The student is already working with a recruiter on an internship offer, **the pending offer will not be interrupted.**
- b) The student has not been working with a recruiter, **they will be extended an internship offer upon accepting the fellowship.**

Apple's University Relations team connects students to Apple through internships and co-ops year round. Learn more here: <https://www.apple.com/jobs/us/students.html>

FAQ

How will the award be disbursed?

For all schools in North America, the fellowship award is given to the nominating university as an unrestricted gift.

For schools outside of North America, the fellowship award is given to the nominating university (or the US-based foundation that accepts gifts on behalf of the university) as an unrestricted gift.

Can students submit their own nominations?

No. Students should be nominated by their institutions, and have a member of the faculty or staff upload their application materials. Students will receive a consent email after their application is submitted, confirming that they agree to be nominated for the fellowship.

What if a student graduates before the two year fellowship is over?

The fellowship award is disbursed on an annual basis at the beginning of each academic year, conditional upon the Scholar's full time enrollment in their program. If a student is not enrolled full time for the second academic year, the award amount may be reduced or omitted from the second year at Apple's discretion.

Can first year students be nominated for the fellowship?

Students attending universities in the United States who are starting the first year of their PhD at the time of nomination (i.e. starting their PhD in in the 2021 / 2022 academic year) may not be nominated, but we encourage them to apply for an internship.

First year students (at the time of nomination) in programs outside of the United States may be nominated.

The program is targeted towards mid-to-late career PhD students with an established research and publication record.

Can students from departments other than Computer Science and Computer Engineering be nominated?

Yes. Nominees can be working towards their PhD in computer science or adjacent fields. Nominees from engineering fields, statistics, informatics and related disciplines who are conducting research in one of the categories listed above are welcome.

Schools will still be limited to 3 nominations *per institution*, not per department. We recommend schools designate (1) individual to submit all nominations, to ensure you do not exceed the limit.

Can the student accept other fellowships if selected for the Apple PhD Fellowship in AI/ML?

The Apple PhD Fellowship in AI/ML is intended to be a fully funded fellowship, so that selected Scholars would not require any additional funding for the duration of the program. Selected nominees may not hold other industry-funded fellowships during their their time as an Apple Scholar.

Can the nominator list multiple advisors in the application?

Yes, you may list as many academic advisors as the nominee has. A letter of recommendation from any of the listed advisors can fulfill the “letter from current advisor” requirement.

Can the nominator submit more than two letters of recommendation?

No. Please limit letters of recommendation to two. If more than two are submitted, we will remove any letters that appear after the first two before reviewing the packet.

Can the nominator save an unfinished application and finish it later?

No. The application tool does not allow you to save work in progress. Once you click “Submit” you cannot make any changes to your application. We strongly recommend crafting your responses in another document and returning to the application page when you’re ready to input & submit. Upon clicking “Submit”, you will receive an automated “Thank you” email acknowledging your submission.

Can the nominator edit or change the nomination application after I submit?

Applications cannot be edited after you click “Submit”. We strongly recommend crafting your responses in another document and returning to the application page when you’re ready to input and submit.

Upon clicking “Submit”, the nominee will receive an email asking for their consent to be nominated. **They must complete this step before the nomination is complete.**

Once they have completed this step, the nominator will receive an email confirming the nomination is fully submitted. This final email may be set up to 3 business days after the nominee consents to their nomination.

If you are concerned that you made an error in your application packet, please email: aiml_scholars@apple.com before the application deadline to determine if edits can be made.