



ELLIS PHD AND POSTDOC PROGRAM

Information for applicants
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ABOUT

ABOUT ELLIS

ELLIS – the European Laboratory for Learning and Intelligent Systems – is a European AI network of excellence that focuses on fundamental science, technical innovation and societal impact. ELLIS builds upon machine learning as driving modern AI – inspired by a model of human intelligence which is not ‘programmed’ but which is shaped by and learns from data.

ELLIS aims to benefit Europe in two ways: (1) We want the best basic research to be performed in Europe, to enable Europe to shape how machine learning and modern AI change the world. (2) We want to have economic impact and create jobs in Europe, and believe this is achieved by outstanding and free basic research.

ELLIS UNITS

Highly innovative ecosystems emerge at outstanding academic institutions, which serve as international talent magnets and incubators of innovation. Thus, rather than just building a virtual network amongst institutions, ELLIS is creating new working environments for outstanding researchers to enable them to combine cutting-edge research with the creation of start-ups and industrial impact. ELLIS Units bring together the best AI researchers at their locations and fulfill a set of criteria to ensure excellence and to be maximally competitive at the international level.

PROGRAMS

ELLIS is establishing a European network of top researchers working at locations throughout Europe, who are organized into ELLIS Programs. These Programs focus on high-impact problem areas that have the potential to move the needle in modern AI. Currently, there are 12 ELLIS Programs, ranging in focus from health to computer vision, to earth and climate sciences.

FELLOWS AND SCHOLARS

ELLIS Fellows advance science and act as ambassadors of ELLIS. They provide strategic advice and leadership not just scientifically, but also in terms of how to build and grow a network of excellence. ELLIS Scholars are outstanding junior scientists, often assistant professors, who do not yet have the seniority of a Fellow but are on a clear trajectory to reach this level.

PHD & POSTDOC PROGRAM

The ELLIS PhD & Postdoc Program supports excellent young researchers across Europe by connecting them to leading researchers and offering a variety of networking and training activities, including boot camps, summer schools and workshops of the ELLIS Programs.

Facilitating collaboration among top talent is part of ELLIS's DNA: ELLIS PhD students and postdocs are supervised by one ELLIS fellow/scholar and one ELLIS fellow/scholar/member from different, partnering institutions. They conduct cutting-edge, curiosity-driven research in machine learning or related fields and conduct their research at both partner institutions during their appointment.

JOIN ELLIS AND SHAPE THE FUTURE OF AI

What's in it for you? ELLIS is not only a brand of scientific excellence, it takes the education and training of its junior researchers seriously. ELLIS seeks to attract the world's brightest minds and helps them become the future leaders in AI. As an ELLIS PhD student or postdoc, you will enjoy the benefits of:

- an international network of over 200 leading machine learning researchers (and growing) in academia and industry
- joint supervision by leading researchers in your field of interest
- collaboration with top research groups
- access to summer schools, bootcamps, networking events and workshops of the ELLIS Programs
- generous funding (through your advisors' resources) to conduct curiosity-driven fundamental research and to attend conferences
- access to high-end infrastructure
- contributing to society by working on high-impact challenges and developing ethical and trustworthy AI, the trademark for AI "made in Europe"

HOW TO JOIN ELLIS AS A JUNIOR RESEARCHER

Currently, there are two ways to become an ELLIS PhD student or postdoc: via our central application process (deadline once a year in December, new PhD students only) or year-round via a nomination process (for PhD students and postdocs who are already working with ELLIS fellows/scholars). See next section for details.

TWO TRACKS

Within the ELLIS PhD & Postdoc Program, there are two tracks: the academic track and the industry track. These tracks have separate requirements for admission and criteria for activity during the appointment, but otherwise offer the same benefits, network and resources to the applicant.

The **academic track** is based on a collaboration between 2 top European academic institutions (e.g. universities), with one advisor from each institution supervising the research.

The **industry track** is based on a collaboration between 1 top European academic institution and 1 European industry player (e.g. a university and a company).

ACADEMIC TRACK

PhD students and postdocs in the academic track strive for international collaboration as they partner with two European academic institutions in their research. These candidates are supervised by one ELLIS fellow/scholar and one ELLIS fellow/scholar/member, each from different countries and academic institutions. During their appointment, PhD students and postdocs will visit the secondary partner institution for an extended research stay of at least 6 months, where they will have first-hand access to the facilities and network of the partner.

INDUSTRY TRACK

The industry track aims to facilitate collaboration between European academic institutions and industry with the understanding that a vibrant and interactive ecosystem is key to stimulating innovation. Within the industry track, PhD students and postdocs conduct their research in collaboration with an academic institution and an industry partner. They are co-supervised by two advisors, one from each of the partners, and split their time conducting research and working between the two. Beyond the resources of the ELLIS network, industry track PhD and postdocs benefit from practical, first-hand experience working with industry while completing their appointment.

Currently, the industry track is only open to applicants through nomination (see next section for more information).

TWO TRACKS

	ACADEMIC TRACK	INDUSTRY TRACK
COLLABORATING PARTNERS	2 European academic institutions (e.g. universities)	1 European academic institution (e.g. university) + 1 European industry player (e.g. company)
ADVISORS	1 ELLIS fellow/scholar + 1 ELLIS fellow/scholar/member	
LOCATION	partners must be located in different countries	partners can be located in the same country/city, but must be based in Europe
EXCHANGE & TIME-SHARING	6 months (min.) exchange at the secondary partner institution	at least 50% of the candidate's time is spent at the academic partner & at least 6 months (cumulative)* is spent at the industry partner
APPLICATION	centralized recruiting (online application) & continuous recruiting (nomination process)	only through continuous recruiting (nomination process)

*In case there already is an extensive collaboration between an industry and academic partner at one site, e.g. a jointly funded and run industrial-academic lab, slightly different regulations may apply (for more info: phd-industry@ellis.eu).

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APPLICATION

JOINING ELLIS

There are two main ways to join ELLIS as a junior researcher:

1. Central application

Prospective PhD students in the academic track apply through the central ELLIS application portal. ELLIS offers a coordinated matching process across Europe, allowing students to apply to multiple potential advisors and find the best match.

2. Nomination

PhD students or postdocs already working with an ELLIS fellow or scholar may be nominated by their advisors. Currently, postdocs and industry track PhD candidates are only recruited non-centrally through nomination.

RESEARCH TOPICS

The ELLIS network covers a wide range of machine learning-driven research areas. We are looking for talented students and postdocs who are passionate about research in these fields. Research areas include but are not limited to:

- Machine Learning Algorithms
- Machine Learning Theory
- Optimization
- Deep Learning
- Interactive and Online Learning
- Reinforcement Learning and Control
- Computer Vision
- Computer Graphics
- Robotics
- Human Computer Interaction
- Natural Language Processing
- Causality
- Interpretability and Fairness
- Robust and Trustworthy ML
- Quantum and Physics-based ML
- Symbolic Machine Learning
- Computational Neuroscience
- Earth and Climate Sciences
- Bioinformatics
- Health

REQUIREMENTS

	ACADEMIC TRACK	INDUSTRY TRACK
COLLABORATING PARTNERS	must be located in different countries	The industry partner, industrial research lab, and industry advisor must all be based in Europe (regardless of HQ location), but can otherwise be in the same country/city as the academic partner
EXCHANGE & TIME-SHARING	6 months (min.) exchange at the secondary partner institution	at least 50% of the candidate's time is spent at the academic partner & at least 6 months (cumulative) is spent at the industry partner
ADVISORS	1 ELLIS fellow/scholar + 1 ELLIS fellow/scholar/member	
CANDIDATE	There is a publication requirement for existing PhD students/postdocs who are nominated : at least 1 first-author publication in one of the top-tier venues in machine learning-driven fields. There is no publication requirement for new students applying via the central application portal.	
FUNDING & DURATION	A minimum amount of funding must be provided through the advisors' resources: 3 years overall for a PhD student, and 2 years overall for a postdoc. ELLIS itself does not provide funding except for smaller travel grants.	
PUBLICATION	The candidate will publish the results of their research in top-tier venues in machine learning-driven fields.	

1. CENTRAL APPLICATION

A central, online application is available for new students looking to start a PhD within the ELLIS network (academic track).

PhD students in the academic track are supervised by one ELLIS fellow/scholar and one ELLIS fellow/scholar/member from different countries, and they visit the exchange institution for min. 6 months.

Note: PhD students and postdocs who are already working with an ELLIS fellow/scholar cannot apply centrally, but may join ELLIS via a nomination procedure (option 2). Currently, postdocs and industry track candidates are only recruited via nomination.

CENTRAL APPLICATION TO THE PHD PROGRAM

ELLIS offers a coordinated recruiting process for its pan-European PhD program. Students may apply through the central ELLIS application portal to become a PhD student within the ELLIS network (deadline once a year in December). In their application, applicants choose from a set of ELLIS research areas and ELLIS fellows/scholars they would like to work with. Afterwards, the best candidates will be matched to the most relevant ELLIS fellows or scholars for interviews. If an offer is made, the parties involved sign a Letter of Intent which specifies the main supervisor, the co-supervisor (from a different country) as well as plans for funding, exchange and graduation. ELLIS does not award degrees; the student must enroll at the degree-granting institution (typically the university the main supervisor is affiliated with).

CURRENT CALL

The ELLIS application portal is now open. The deadline is December 1st, 2020.

[APPLY NOW](#)

TIMELINE

Oct-Nov
applications

Dec-Jan
reviews/matching

Feb
interviews

Mar
decisions

1. CENTRAL APPLICATION

A central, online application is available for new students looking to start a PhD within the ELLIS network (academic track).

PhD students in the academic track are supervised by one ELLIS fellow/scholar and one ELLIS fellow/scholar/member from different countries, and they visit the exchange institution for min. 6 months.

Note: PhD students and postdocs who are already working with an ELLIS fellow/scholar cannot apply centrally, but may join ELLIS via a nomination procedure (option 2). Currently, postdocs and industry track candidates are only recruited via nomination.

ADDITIONAL INFORMATION FOR APPLICANTS

As part of the application procedure, you will be able to indicate preferences for specific research areas and potential supervisors who are currently hiring. You will also be asked to provide contact details of 2 to 3 references who have agreed to submit a reference letter.

Additionally, you will need to upload the following documents:

- A two-page **motivational letter** in which you (1) explain why you want to earn a PhD within the ELLIS network and (2) include a research statement describing past research projects and interests as well as the future direction of your research. (Optional: In addition to (1) and (2), you may also mention specific advisors you are interested in working with.)
- Your **current résumé or CV** that provides your educational background, work experience, full citations of any publications you may have, any research presentations you have given, and any awards you have received.
- Unofficial **transcripts** of all of your university studies (BSc and MSc), including (unofficial) translations if not in English.
- Optionally, **additional documents** such as a thesis, published paper, or project portfolio, (or parts thereof) as a single PDF (<20 MB).

All application documents (including reference letters) must be submitted before the application deadline. Only complete applications will be considered.

2. NOMINATION (CONTINUOUS RECRUITING)

The nomination process is available for PhD students and postdocs who are already working with an ELLIS fellow or scholar. Nomination is possible for both the academic and industry track.

Note that postdocs of either track and PhD industry track candidates are currently only recruited via nomination.

ELLIS fellows and scholars can nominate their current PhD students and postdocs to the ELLIS PhD & Postdoc Program by sending an email to phd@ellis.eu (academic track) or phd-industry@ellis.eu (industry track).

NOMINATION PROCESS

1. ELLIS fellows/scholars may nominate PhD students or postdocs who are working with them to become ELLIS PhD students or postdocs by sending an email to phd@ellis.eu (academic track) or phd-industry@ellis.eu (industry track). The PhD student/postdoc must have published at least one first-author paper in a top-tier venue in machine-learning driven fields (NeurIPS, ICML, ICLR, JMLR, CVPR, ICCV, ECCV, IJCV, PAMI, RSS, CoRL, ACL, EMNLP, KDD, AAAI, IJCAI, COLT, UAI, SIGIR, WSDM, Web Conference). In the nomination email, please include the following information:

- Name of the PhD/postdoc
- Personal website of the PhD/postdoc
- Email of the PhD/postdoc
- Title of the PhD/postdoc project
- Abstract of the project (5-20 sentences without line break)
- Primary host: advisor name, role, institution/company, country
- Secondary host: advisor name, role, institution/company, country
- Dates: beginning+end of the PhD/postdoc
- Dates: beginning+end of the exchange period/time-sharing agreement
- DOI-link to the first-author publication
- (Optional) Portrait picture of the PhD/postdoc for the website

2. If all requirements have been met, the PhD student/postdoc will receive a Letter of Intent, to be completed together with their advisors. The Letter of Intent verifies that both partner institutions approve of the arrangement and understand the rules of engagement.

3. After the signed Letter of Intent is received, the PhD student/postdoc is admitted to the ELLIS PhD & Postdoc Program.

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GOOD TO KNOW

FREQUENTLY ASKED QUESTIONS

Questions may be directed to phd@ellis.eu. Please read this documentation and the information on the website (ellis.eu/faqs) carefully before sending an email.

CENTRAL APPLICATION

Do I need to be a European citizen to apply?

No, the ELLIS PhD and Postdoc Program welcomes applications from all qualified candidates regardless of nationality.

The ELLIS Fellow/Scholar I want to work with is not in the list of PhD Advisors in the application portal.

Only fellows/scholars who are recruiting in this year's round are listed. The list of ELLIS fellows/scholars who are recruiting in this year's round can be found in the Call for Applications in the 'News' tab.

Will I get an ELLIS degree?

ELLIS is a non-profit organisation that cannot award official degrees. The ELLIS PhD & Postdoc Program is a meta program on top of existing graduate programs. The student will enrol as a student or be employed at a degree-granting institution (typically the university your main supervisor is affiliated to) and must comply with all the regulations and fulfil all the requirements of the host institution.

If I am accepted as an ELLIS student, how exactly will my PhD be funded?

ELLIS does not employ or fund PhD students (except from providing smaller travel grants). If you get an offer, you will be funded through your advisors' resources. After accepting the offer, the student and the two advisors will sign a Letter of Intent which specifies the funding plan (among other things). The ELLIS Team cannot give you any details about the amount of funding beforehand because it may differ from country to country and from advisor to advisor. You can ask for more details during the interview. Only ELLIS fellows/scholars who have open positions are listed in the application portal.

FREQUENTLY ASKED QUESTIONS

Questions may be directed to phd@ellis.eu. Please read this documentation and the information on the website (ellis.eu/faqs) carefully before sending an email.

CENTRAL APPLICATION

Do I need to apply to the university that the main advisor is affiliated to?

It depends on what the rules of the host institution are. In brief: ELLIS offers an EU-wide central application portal and coordinates the matching process, but the official hiring process is local, governed by the institution of your main advisor.

If you are not yet working as a PhD student with an ELLIS fellow or scholar, but are a new student who wants to apply for a PhD position as part of the ELLIS PhD Program, you would typically first apply through the ELLIS portal (but see below for important exceptions).

Each year, ELLIS fellows and scholars may sign up to recruit new PhD students through the centralized recruiting of the ELLIS PhD program. Students may select preferences for various advisors from the list of recruiting ELLIS fellows and scholars. Students and potential advisors are matched and the best students will be invited for interviews. If the student gets an offer, the student and two supervisors will sign a Letter of Intent which specifies the plans for funding, graduation and the exchange. However, ELLIS does not provide funding (except for smaller travel grants) nor does it award degrees. The ELLIS PhD Program is a meta program on top of existing graduate programs. I.e., you will be funded through your advisors' resources and the degree will come from a university. This means that all the official paperwork goes through the institution of your main advisor and you have to comply with all their rules. Consequently, new students must be accepted to the degree granting university in addition to being accepted as an ELLIS student (i.e., the acceptance to the ELLIS PhD program is a conditional accept).

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FREQUENTLY ASKED QUESTIONS

Questions may be directed to phd@ellis.eu. Please read this documentation and the information on the website (ellis.eu/faqs) carefully before sending an email.

CENTRAL APPLICATION

Do I need to apply to the university that the main advisor is affiliated to?

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After you accept the offer to become an ELLIS PhD student, you should ask your advisor which steps you have to take to become a student/an employee at the degree-granting institution (e.g. submitting documents, applying to the local doctoral school, etc.). Rules may vary depending on the institution.

IMPORTANT Some universities (e.g. University of Oxford) do not accept graduate students throughout the year, but have strict deadlines for applying to their graduate programs, which may be earlier than the ELLIS deadline. In this case, you should not wait until the ELLIS selection procedure has ended, but apply in parallel if you don't want to wait for the next deadline to enroll as a PhD should you get an ELLIS offer. If unsure, visit the website of the university or contact your preferred advisor. It's safest to apply to both programs in parallel to avoid any delays in the starting date of your contract.

I haven't finished my BSc/MSc degree yet. Can I apply?

Final-year students can apply.

Can I apply if I don't have a MSc degree?

Rules in Europe vary. Some participating universities require a MSc, others accept BSc students as well (sometimes under specific conditions). You will find this information in the portal if you click on the list of this year's recruiting advisors (this list can also be pre-viewed from the Call of Applications in the 'News' tab).

FREQUENTLY ASKED QUESTIONS

Questions may be directed to phd@ellis.eu. Please read this documentation and the information on the website (ellis.eu/faqs) carefully before sending an email.

INDUSTRY TRACK

I am an ELLIS fellow and would like to nominate a PhD or postdoc for the industry track, but do not currently have an active collaboration with industry. Will ELLIS arrange this?

No. Currently, the ELLIS industry track is only able to consider active collaborations and cannot begin or arrange such collaborations.

I am part of an existing collaboration between industry and academia. Can our current PhD students and postdocs apply to the ELLIS industrial track?

Yes! This is the ideal way to begin an ELLIS industry track PhD or postdoc. In order to accommodate the practices and regulations of various participating organizations across different European countries, there are only a few requirements that must be met before nomination (see requirements slide 02). Beyond this criteria, the exact details of each arrangement are left open and flexible for the partner organizations to determine along with the candidate. See the Application section for details on nominating candidates.

I am part of an existing collaboration between industry and academia, but we do not currently have PhD students or postdocs, although we would like to. Does ELLIS support in setting up these arrangements?

Because of the diversity in ways of working, requirements and regulations among academic institutions, companies, and between European countries, ELLIS cannot individually assist in setting up partnerships and collaborations that support PhD students or postdocs. However, it can recommend best practices and ways of working that help to serve the various needs of the collaborators. If you have questions about general setup or best practices, you can send an email to phd-industry@ellis.eu.

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CONTACT

PHD COMMITTEE & COORDINATION

PhD Committee

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