

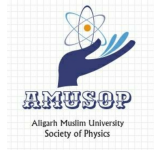
Internships & Training Opportunities for Physics Research

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October 17, 2021



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What is an Internship?

- An internship is a professional learning experience that offers meaningful, practical work related to a student's field of study or career interest. An internship gives a student the opportunity for career exploration and development, and to learn new skills.
- Can be paid or unpaid; Sometimes an important factor.
- **Training**, on the other hand, is teaching, or developing in oneself or others, any skills and knowledge or fitness that relate to specific useful competencies. Training has specific goals of improving one's capability, capacity, productivity and performance. (more on [Wikipedia](#).)

How to Find an Internship?

3 ways to find an internship:

Go Online

There are plethora of resources but searching can be overwhelming. So, it's best to search what you are looking for and not something like “Internships in India”!

Use Department Resources

AMU's Physics Department's notice board is a great resource to find an internship or training opportunity. Also, you can always ask a professor for such opportunities.

Look at Specific Organization's Website

Sometimes, institutes do not make the internship ads public. You can visit their websites and search. Also, it's a good idea to contact (via email) specific faculties and ask for any work opportunities over summer or winter. Do not send them more than one reminder if they do not respond.

More on this can be found [Here](#).

Application Requirements

- CV (Curriculum Vitae) or Resume
- Statement of Purpose (SOP)/ Motivation Letter
- Recommendation Letters (one to three)
- Transcripts and/or Degree (Latest Degree and transcript upto latest semester)
- Research Proposal (What research are you interested in, what are your ideas on that; not necessarily any genuine idea)
- List of Skills (Hardware, Software & Computational Skills)
- No Objection Form (A written declaration from Department's chair or Dean of Science faculty that there is no objection on your participation. Sometimes the internship application comes with a format)
- National/International Test Score/Rank (JAM, NET/JRF, GATE, JEST, TOEFL/IELTS, GRE etc.)

CV (Curriculum Vitae) or Resume

Following should be in general (not necessarily or limited to) the contents of a CV:

- Your Name, Permanent Address, Email, Phone
- Objective
- Educational Qualifications: in reverse chronological order (Degree, Passing Year, Board/Institute, Marks in GPA or %)
- Research Experience
- Skills: Hardware, Software, Documenting & Computational Skills, Operating Systems
- Achievements
- Conferences / Workshops / Seminars
- Leadership/Activities
- Professional Affiliations

Don't include any false information, your photo if not mentioned specifically. You can give a link for all your supporting documents. A good webinar for reference is [Here](#).

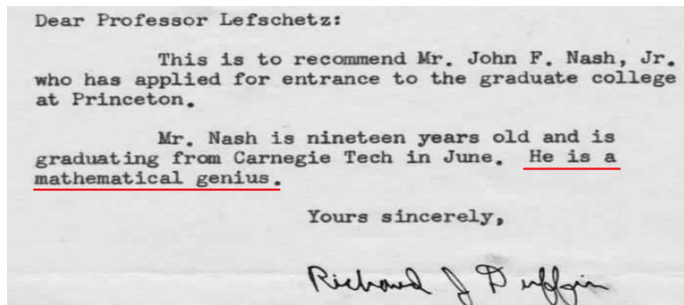
Statement of Purpose (SOP)/ Motivation Letter

Most of the time, the application will ask you to answer a few questions in your SOP. If not asked, try to answer the following questions (again, not limited to these questions only):

- Who are you and why are you applying for this internship?
- What is your journey in Physics so far and your motivation for the research you are interested in?
- What have you done so far for your research interest?
- How can an internship in that specific institute/organization help you in your personal and professional career.

SOP is a very unique and personal document. **Don't** copy it from any online resources. A good webinar for reference is [Here](#).

Recommendation Letters



Most of the people are not like Professor John Nash! So, a recommendation letter for most of us should not look like this. Typically a fair bit longer (1 page or so) and describing specifics about how long and how good the reference writer knows the applicant, and what makes them special. Things like courses they've taught to the student, and how that student set themselves apart in those courses.

A Few Important Internships

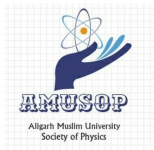
National

- The three Indian Science Academies' Summer Research Fellowship Program
- TIFR-Visiting Student Research Program
- National Initiative on Undergraduate Sciences-Physics Camp (1st yr students)
- Visiting Summer Student Program, IoP, Bhubaneswar
- ICTS, Bengaluru-Summer Fellowship Program and Long Term Visiting Students' Program
- SINP, Kolkata, HRI, Prayagraj, IMA, Chennai
- IISERs, IITs (Madras, Roorkee, Bombay)





International

- Europe: CERN, DESY
- USA: S.N Bose Scholars Program - Indo-U.S. Science and Technology Forum (IUSSTF), Oak Ridge National Lab, APS Training Programs, Argonne national Lab

Thank You!



References

-  <https://careers.umbc.edu/employers/internships/what-is-an-internship/>
-  <https://www.vox.com/2015/6/6/8738229/john-nash-recommendation-letter>
-  <https://en.wikipedia.org/wiki/Training>
-  <https://www.youtube.com/channel/UCbHygCFd84sJUewBsb9Lqrg>

Acknowledgement

- Carl & Catherine Chaffee Scholarship Donors.
- Department of Physics & Astronomy, University of Kansas (KU), USA.
- Department of Physics, Aligarh Muslim University (AMU), India.
- Society of Physics Students (SPS), KU Chapter.
- AMU Society of Physics (AMUSoP), AMU.

- Dr. Wasikul Islam's International Internship Links
- Mr. Mohd Talha's National (Indian) & International Internship Details