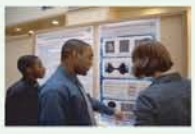
2010 Nanotechnology Summer Internships

Research Experience For Undergraduates Program

Explore exciting interdisciplinary opportunities in
Nanoscience and Nanotechnology
at a leading university research center

Quantum Structures
Nanofabrication Processes
Nanoscale Solid State Physics
Chemistry at the Nanoscale




Nanobiotechnology
Nano and Microelectronics
Optics and Optoelectronics
Nano and Micromechanics



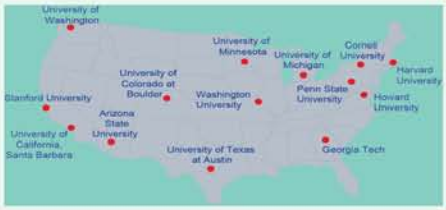
Physics
Chemistry
Engineering
BioSciences

Nano and Microfluidics
Nanostructure Science
Molecular Scale Structures
Self-assembled Structures


Participating sites include:

Cornell NanoScale Science & Technology Facility
Stanford Nanofabrication Facility
Nanotech@UC Santa Barbara
Lurie Nanofabrication Facility at U. Michigan Ann Arbor
Nanofabrication Center at U. Minnesota-Twin Cities
Center for Nanotechnology at U. Washington
Nanotechnology Research Center at Georgia Tech
Microelectronics Research Center at U. Texas Austin
Howard Nanoscale Science & Engineering Facility at Howard University
Center for Nanoscale Systems at Harvard University
Penn State Nanofabrication Laboratory at Penn State University
Nano Research Facility, Washington University in St. Louis
ASU NanoFab at Arizona State University
Colorado Nanofabrication Laboratory at U. of Colorado at Boulder

Chemical and Biological Sensors
Computational Nanophysics
Molecular Electronics
Polymers
Nano-Crystals
Bioengineering
Magnetics
Ferroelectrics
Soft-materials
Biophysics

The laboratories of the National Nanotechnology Infrastructure Network will conduct a joint REU program during the summer of 2009. Selected students will participate in a unique, highly coordinated research experience involving one of the many facets of nanotechnology at one of the NNIN Laboratories. Opportunities exist in all areas of the country, across a broad range of science and technology. Each project involves hands-on nanotechnology research with state-of-the-art equipment. Each student will work on an individual research project, with support from faculty, student mentors, and facility staff. At the end of the program, all participants will gather for a national research convocation on nanotechnology, where each student will present the results of his/her summer work. This will be the 12 th summer of this highly successful program.

Special Opportunity

Upon completion of this program, selected students will be offered the opportunity for a 2nd summer (2011) advanced research experience at a **major national or international laboratory**, including, for example, the National Institute of Materials Science in Japan and the Helmholtz Research Center in Jülich, Germany. These exciting career-building positions will only be available to students who have sucessfully completed the NNIN REU program, who have shown superior research aptitude and attitude, and who have demonstrated a high level of interest in a nanotechnoogy research career. Approximately 10 to 12 such second summer positions will be available.

Application Deadline:
(online) **February 10, 2010**
(paper receipt) **February 17, 2010**

Award Process Begins:
March 11, 2010

One on-line application

Over 75 available positions

10 Week Program
Stipend
Travel
Housing

http://www.nnin.org/

Applicants must be U.S. Citizens or Permanent Residents at time of application.
Minority and female candidates as well as candidates from smaller, non-research institutions are especially encouraged to apply.

This particular program includes the REU programs at the listed NNIN laboratories.
Other nanotechnology REU programs not affiliated with NNIN may also be available at each university

NNIN
NanoScale Science, Engineering & Technology
NSF

FAQ
NNIN REU Program

#1: Am I eligible for the program?
There are three requirements for eligibility for all applicants: 1] U.S. citizen or Permanent Resident, 2] 18 years of age or older, 3] not graduating before the end of the program (August 2010).

#2: Does my major fit?
We hire most every science and engineering major there is! And that includes computer science.

#3: Do you hire freshmen?
Yes! Mostly sophomores and juniors because of their course completions, but we hire a number of frosh every year. It doesn't cost much to apply and is good experience! Keep applying until you get in!

#4: Can I choose my site to do research?
Yes! You will be asked to choose your top five preferred sites.

#5: Can I choose my research project?
No! However, you will be asked to indicate your interests. Working with #4, we will do our best to match you to a suitable research project that will interest you. With over 75 REU projects at 14 NNIN sites, allowing the applicants to choose a project is not feasible.

#6: How many students typically apply?
We typically receive around 700 applications, of which about 500 are actually completed. This sounds like a lot, but by the end of the award process, more than 120 receive an offer! This is because some applicants accept another offer and withdraw, or decline our offer.

#7: Do I really have to write an essay?
Yes! This really is a critical component of your application. Take time and care with your essay. Put some thought into your interest in nano-research. Let us know who you are. Get it proofread! Make sure your name is on every page!

#8: What will I do during the summer? How long is the internship?
You will be focusing on doing research and you will be working as part of a research group. There will also be other activities (technical seminars, after work fun, etc). The internship is 10 weeks long, June to August 2010.

#9: What kind of projects will I work on?
See http://www.nnin.org/nnin_reu.html for examples from past years.

#10: Will I work alone?
No, you will be working closely with someone from your research group: graduate student, post doc, or sometimes the PI him/herself.

#11: How much will it cost me? How much will I earn?
Interns receive a $4000 stipend, and housing and travel are included. In most cases, you have to pay for your food.

#12: What is special about the NNIN REU program?
Plenty of things!! A single application goes to 14 different sites, for over 75 projects. You get the opportunity of spending the summer and working at great universities. There is a special convocation at the end of the summer where you present your work and see what the other interns have been working on.

#13: What is that thing about the 2nd summer research experience-the NNIN iREU???
A selected group of NNIN REU participants will be able to work closely with scientists in Germany and Japan! The selection criteria will be based on your summer work, recommendations from this experience, your qualifications, and commonality of interests for the coming year. There will be an opportunity to apply at the end of the REU program.

#14: Can I take a class while I'm in the REU program?
We do not allow taking any classes or having any other job than the research internship during the ten weeks. Ten weeks is a very short time in the world of research and any distractions will hamper your experience.

#15: I'm from a small school and I've never done research. Can I apply?
Yes! Please do!! Research experience is not necessary. We strongly and especially encourage students from small schools — and minority/female students — to apply. Be sure to write a strong essay on your interests.