SOARS Career Webinars

Internship Opportunities at the National Center for Atmospheric Research

Tuesday, Dec. 3, 2014
Our panel

**Kristin Mooney**
Outreach Specialist
SIParCS Program, Computational and Information Systems Laboratory, NCAR

**Valerie Sloan**
Education Specialist
Spark UCAR Science Education & SOARS Program

**Nicolas Potts**
Engineer III
Earth Observatory Laboratory, NCAR

**Moderator**
Rebecca Haacker-Santos
Director of the SOARS Program
Spark UCAR Science Education
Today's Webinar

- What is a research internship?
- Why do an internship?
- What can I expect from a summer at NCAR?
- What opportunities are available?
- How do I submit a competitive application?
- What other resources do you have for me?
What is NCAR?
The National Center for Atmospheric Research

NCAR hosts hundreds of scientists, engineers and programmers in support of the atmospheric research community.

Summer internships provide opportunities to:
• Use the latest tools & technology
• Learn about field campaigns run with the research community
• Be at the hub of atmospheric research in the U.S.
UCAR Community Programs (UCP) provide:

- Education and training services
- Development and transfer of new technologies
- State-of-the-art data services

The SOARS Program & the Unidata Internship are part of UCP
What is a research internship?

- A student opportunity to work with a mentor or team on a research, engineering or computing project, and meet peers with similar interests.
Why is it worth doing one?

• You gain work experience & a competitive edge
• Develop new skills
• Find out if a field is right for you
Be mentored by leading scientists
Expand your network of supporters, colleagues and friends
Present at a conference
What opportunities are available at NCAR?

1. SiParCS - Summer Internships in Parallel Computational Science
2. Summer Undergraduate Program for Engineering Research (SUPER)
3. SOARS Program
4. Unidata Summer Internship
5. Undergraduate Leadership Workshop
SIParCS - Summer Internships in Parallel Computational Science

- 11-week Summer internship
- May 19 – August 1, 2014
- Open to:
  - Upper division undergrads
  - Graduate students
- In disciplines such as:
  - Computational and Computer Science
  - Mechanical/Electrical Engineering
  - Applied Math and Statistics
- Support:
  - Travel, Housing
  - 11 weeks salary
  - Conference travel and publication costs
- Number of interns selected:
  - Typically 10-15

http://www.2cisl.ucar.edu/siparcs
Summer Undergraduate Program for Engineering Research (SUPER)

- Work on real engineering problems with engineers within the Earth Observing Laboratory.
- If you major in electrical, mechanical, optical, aerospace, and software engineering majors, you are encouraged to apply.
- Previous projects include:
  - Ozone instrument development
  - Ruby on Rails data access web development
  - Mechanical fabrication and FAA qualification of an antenna fairing for NCAR/NSG G-V aircraft

www.eol.ucar.edu/super
Significant Opportunities in Atmospheric Research and Science

- Internships in meteorology and atmospheric chemistry, physics, engineering, math, ecology
- Positions at NCAR, NOAA, CU, or CSU
- Multi-dimensional mentoring
- A supportive community
- Professional development
- Financial support for tuition and conference travel
- Participate multiple years
- Application deadline Feb. 1
www.soars.ucar.edu
SOARS Research Projects

- Topics in severe weather, climate modeling, air chemistry, solar earth systems, engineering, and scientific computing
Software engineering for data science: Internships in Unidata

- Work at the intersection of atmospheric and computer science
- Do data analysis and data visualization
- Use, design, and modify Unidata software
- Support the research and education community
- Juniors, seniors, and graduate students are eligible!

contact us: support@unidata.ucar.edu
Undergraduate Leadership Workshop

- Week-long visit to NCAR (June)
- Discover new topics in meteorology, computer science, environmental studies, and scientific engineering
- Meet top scientists in the field
- Explore career and graduate school options
- Learn practical leadership skills

https://spark.ucar.edu/undergraduate-leadership-workshop
So how do I apply?

- Choose programs that are interesting to you
- Note deadlines & requirements
- Most applications ask for: transcripts, recommendation letters, essays, application forms.
Who do I ask for a recommendation letter?

- Professors in science, computing, engineering & math who know you (talk to them)
- Employer in research jobs
- Previous internship mentors
- Family & friends
- Academic advisors or counselors
- For college students, no high school teachers
- Non-science bosses
Writing a good essay

- Learn about the programs
- Write a draft
- Talk through the essay with someone
- Gear it towards the program
- Read it over several times

http://www.soars.ucar.edu/apply/
What is the timeline for applying?

FALL
• Note the deadlines
• Talk to recommenders
• Draft personal statement
• Order transcripts

WINTER
• Request letters of recommendation
• Gear your personal statement to specific programs
• Follow up with recommenders
How to Apply for an Internship

Internships at NCAR: Questions and Answers

What is a research internship?

Why a summer internship?

How do I choose which internships to apply to?

How do I prepare for the application?

Who should I seek for references?

How do I write an essay for the application?

What is like living in Boulder, Colorado?

Can you direct me to other resources?

Lists of other internships

What is a research internship?

• An 8-10 week, paid, hands-on, summer work experience in a research environment
• Working under the mentorship of a scientist or team
• Collecting data in the field, computer modeling, and data analysis
• Presenting your research progress in a talk or poster, and possibly traveling to a conference

What is summer research? Why should I apply? - A clear one-pager
Making Your Summer Research Internship a Good One - A good article on what a research internship is like

Why do a summer internship?

Internships can be incredible learning experiences, and confidence-building adventures!

• Why Should I Do Research? - A list
• YouTube video of interns describing their summer research experience - a must-see!
Find out more and get contact information at:

- Internship resource web page from webinar:
  [https://spark.ucar.edu/internship-application-tips](https://spark.ucar.edu/internship-application-tips)

- NCAR Internship Opportunities:
  [https://www2.ucar.edu/opportunities/undergrad](https://www2.ucar.edu/opportunities/undergrad)