DIRECT: Data Intensive Research Enabling Clean Technologies

A graduate training program of the Clean Energy Institute for UW graduate students interested in data enabled discovery and design of advanced materials for clean energy

PROGRAM DETAILS

Discovering new materials that will generate and store renewable energy in a low cost, environmentally benign and scalable fashion is perhaps the most important technological challenge facing society today. However, all phases of this scientific process – design, synthesis, and characterization – are routinely stymied by the same challenge: researchers are not equipped to handle the deluge of data coming from their labs and high performance computers. DIRECT, a Clean Energy Institute training program, funded by the National Science Foundation, provides training that will equip a new generation of energy researchers to handle the massive data sets arising from all stages of materials discovery.

DIRECT provides UW graduate students the opportunity to receive data science training, practice applying new tools and skills in a project-based learning environment, and gain experience working with industry and academic partners on a team-based capstone project.

APPLICATION

Applications for MS students available starting October 1.
depts.washington.edu/uwdirect/

ELIGIBILITY:

MS students should be in their first year. No previous data science training is required. Qualified applicants will show applicability of data science to current research, applicability of data science to future career goals, and can demonstrate potential impact of data science on UW labs, research, and other UW students by participation.

As a DIRECT trainee you will:

• Participate in a customized 2 course sequence to gain supplementary training in data sciences and materials design.
• Work with a team on a data-intensive research project, receiving regular feedback from project sponsors and training experts.
• Opportunity to network with industry partners.
• Participate in data science seminars, events, training, and professional development activities organized by the Clean Energy Institute, the eScience Institute, and the DIRECT program.

To learn more about DIRECT, please visit depts.washington.edu/uwdirect/
DIRECT: Data Intensive Research Enabling Clean Technologies

A graduate training program of the Clean Energy Institute for UW graduate students interested in data enabled discovery and design of advanced materials for clean energy

APPLICATION REQUIREMENTS
Students will apply online, applications must be submitted by Friday, October 22, 5:00pm.

You will be asked to provide:
(i) a 150 (max) word statement of anticipated research during the award period; (ii) a 200 (max) word statement about your interest in a data science training program (iii) a 50 word (max) statement regarding graduation timeline and career goals; (iv) a CV (not to exceed two pages) listing undergraduate GPA, UW graduate GPA, publications, presentations, awards, and participation in education and broader community activities; (v) letters of support, with the option to authorize the committee to review your master program application material instead of requesting new letters of support.

QUALIFICATIONS
Qualified applicants will have academic record in relevant coursework, applicability of data science to current research, applicability of data science to future career goals, and can demonstrate potential impact of data science on UW labs, research, and other UW students by participation.

FINANCIAL SUPPORT
No funding is available for MS students in the DIRECT program.

TRAIINEESHIP SCHEDULE
Acceptance into the program provides a 1 year designation as a DIRECT trainee

**Autumn Quarter:** DIRECT trainees will participate in a kick-off event.

**Winter Quarter:** DIRECT trainees will participate in a 2 course sequence to gain comprehensive training in Python programming, statistics, data science methods, and practical application of data science to molecular and materials problems.

**Spring Quarter:** DIRECT trainees will work in project teams on a real research project/problem related to issues of data management, processing or statistics as applied to design of new materials. Program staff and faculty will customize the project experience to be relevant to trainees PhD or MS theses/projects.

LEARN MORE
To learn more about the program, visit depts.washington.edu/uwdirect/

APPLY NOW
Applications must be submitted by Friday, October 22, 5:00pm.