



UNIVERSITY of HOUSTON

CULLEN COLLEGE of ENGINEERING
Department of Civil & Environmental Engineering



UH Synthetic Aperture Radar Interferometry Lab
German Aerospace Center (DLR)
Radar Science Group - Microwaves and Radar institute

PhD/MS Student Positions
<https://milillo.cive.uh.edu/positions/>

The Synthetic Aperture Radar Lab at the University of Houston and the Radar Science group at the German Aerospace Center (DLR), Microwaves and Radar Institute invite applications from highly motivated students for graduate research in the broad area of Synthetic Aperture Radar Electrical Engineering and Big Data applications. Research will be highly interdisciplinary, at the intersection of signal processing, geophysics, computer science and civil engineering.

Research topics of interest include

- Interferometric big data processing
- SAR Applications to surface deformation change
- Machine learning for biomass monitoring applications
- SAR constellations for natural hazard response
- Remote sensing of the cryosphere
- Landslide dynamics
- Multi-temporal time-series analysis
- Machine learning applied to SAR products

Preferred qualifications

- Bachelor/Master in Electrical or Telecommunication Engineering, Computer Science, Mathematics, Physics or related
- Excellent programming skills (Python/Matlab/C)
- Strong foundation in linear algebra, signal processing and estimation theory
- Research experience in remote sensing, synthetic aperture RADAR, InSAR or machine learning
- Strong writing and communication skills
- Excellent knowledge of the English language

We have two openings starting **Fall 2022**. Successful applicants will receive a tuition waiver and a full stipend of about \$2100/month. Students may apply for a regular PhD (after MS) or a direct PhD (after BS). Strong applicants will have prior research and/or programming experience on related topics, and excellent communication skills. To express your interest in the open positions before submitting a full application, students are encouraged to fill out this optional pre-application interest form. <https://forms.gle/7en1EEkNtLVqjSAf7>. Please email questions to pmilillo@central.uh.edu. For instructions on how to submit a full application, please visit <https://uh.edu/graduate-school/admissions/how-to-apply/>.

Selections will be coordinated with DLR and students will be expected to spend extended amount of time as visiting researchers at the Microwaves and Radar Institute in Oberpfaffenhofen, Germany.

The University of Houston is located in a picturesque 667 acre campus a few minutes from downtown Houston with over 45,000 students. The CEE program at the University of Houston is home to 22 tenured or tenure-track faculty members with over 270 undergraduates, and 130 graduate students.

Houston is the fourth largest city in the U.S. and the “energy capital of the world”. The city of Houston is home to the world’s largest medical center, NASA, the Port of Houston and the second-most Fortune 500 headquarters of all major U.S. cities. The greater Houston area offers state-of-the-art recreational facilities, world-class arts and cultural activities, excellent schools, and affordable housing.

