

Direct Link: https://www.AcademicKeys.com/r?job=230976

Downloaded On: May. 9, 2024 2:29pm Posted Feb. 18, 2024, set to expire Jun. 19, 2024

Job Title Postdoc and Ph.D. Openings in Radar and Image Processing and

Autonomy

**Department** Mechanical Engineering

https://sc.edu/study/colleges\_schools/engineering\_and\_computing/faculty-

staff/yi\_wang.php

Institution University of South Carolina

Columbia, South Carolina

Date Posted Feb. 18, 2024

Application May 15, 2024

**Deadline** 

**Position Start** Immediately

**Date** 

Job Categories Graduate Student

Post-Doc

**Academic** Transportation Engineering

Field(s)

**Transportation Engineering** 

Water Resources Engineering

Mechanical Engineering

Robotics

Naval Architecture & Marine Engineering

Naval Architecture & Marine Engineering

Sustainable Engineering

Mechatronics

Industrial & Systems Engineering

Nuclear

Mechanical Engineering

Ocean Engineering



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Mechatronics

Optics & Optical Engineering

Structural Engineering

Ocean Engineering

Sustainable Engineering

Manufacturing & Quality Engineering

Optics & Optical Engineering

Nuclear

Manufacturing & Quality Engineering

Structural Engineering

**Textile Engineering** 

**Robotics** 

Water Resources Engineering

**Textile Engineering** 

Industrial & Systems Engineering

Human Factors Engineering/Ergonomics

Human Factors Engineering/Ergonomics

Geomatics

Geomatics

Food Process Engineering

Food Process Engineering

**Engineering Physics** 

**Engineering Physics** 

**Engineering Mechanics** 

**Engineering Mechanics** 

**Energy Technology** 

**Energy Technology** 

Electrical and/or Electronics

Electrical and/or Electronics

Computer Engineering

Computer Engineering

Computer Science



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Computer Science

Construction Engineering/Management

Construction Engineering/Management

Civil Engineering

Civil Engineering

Chemical/Petroleum

Chemical/Petroleum

Bioengineering (all Bio-related fields)

Bioengineering (all Bio-related fields)

Aerospace/Aeronautical/Astronautics

Aerospace/Aeronautical/Astronautics

Engineering - Other

Engineering - Other

Job Website https://research.cec.sc.edu/wang

Apply By Email yiwang@cec.sc.edu

### **Job Description**

Graduate study positions with full graduate research assistantship (GRA) and postdoc positions in the Department of Mechanical Engineering and Department of Electrical Engineering are available immediately at the University of South Carolina (USC), Columbia to develop reliable perception for unmanned maritime systems. The GRA will fund MS/PhD tuition, fees and health insurance, and stipend. The positions entail

#### (1) Image Analysis, Radar and Radio Analyses

The project will investigate and develop image processing and signal analysis algorithms and models for small object detection and identification in maritime environment using radars. Initial focus of this position will be to establish quantified baseline performance levels achievable with radar.

### Required Qualifications

- Bachelor's degree in a relevant engineering field of study from an accredited college or university.
- Hands-on experience with computing and programming in Python, Matlab, C/C++, or other object-



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#### oriented programming languages

- Strong interest and self-motivation to perform cutting-edge research and conquer challenges in realworld engineering and to publish high-impact papers
- Must be a US permanent resident or a US citizen.

### **Preferred Qualifications**

- Experience in doing wireless channel propagation analyses, computer simulations, and measurements.
- Experience with radio frequency (RF) measurements, analyses, and simulations.
- Strong understanding of the state-of-the-art (and limitations) in radar performance, and understanding of synthetic aperture radar (SAR).
- (2) Autonomous Systems and Field Testing and Demonstration We will develop and field test a reliable, integrated perception system (Vis/NIR and radar) for autonomous surface vessels (including both software and hardware).

At least one of the qualifications below is preferred:

- Hands-on experience with embedded systems and electronics and control modules, such as Jetson TX series, Intel NUC, Raspberry Pi, and Arduino.
- Field experiments and testing of marine systems.
- Hands-on experience with programming in Python, Matlab, C/C++, or other object-oriented programming languages
- Strong interest and self-motivation to perform cutting-edge research and conquer challenges in realworld engineering and to publish high-impact papers
- Experience with machine shop and hardware engineering and assembly.
- Must be a US permanent resident or a US citizen.

USC is the flagship university in the State of South Carolina, and the Ph.D. program at the department of Mechanical Engineering is ranked No. 31 nationally by the National Research Council (NRC) (http://www.me.sc.edu/about/), and the College of Engineering and Computing is ranked No. 1 in the State of South Carolina for faculty research productivity.

To apply, please send your CV/Resume, publications, etc. in a single PDF (for Ph.D. applicants, transcripts, and GRE scores are also required) to Dr. Wang (yiwang@cec.sc.edu) with the email subject "Position Application".



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Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Yi Wang

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