Prof Vikas Dhiman in the Electrical and Computer Engineering department at the University of Maine is seeking multiple doctoral level graduate research assistants to work on multiple projects related to the research of autonomous vehicles, robotics and AI. The successful candidate will build on Prof Vikas Dhiman's research work in the direction of safe-control of robots, reinforcement learning for robotic navigation (indoors and outdoors), localization and mapping in robotics, computer vision and machine learning.

Research Areas

We will be building a cross-disciplinary research team that will be developing new machine learning, robot perception and distributed control theory and algorithms as well as applying the new algorithms to real-world robots in various application areas including but not limited to autonomous driving, agriculture, forestry.

Responsibilities

You will be working with Vikas Dhiman on various projects as part of your doctoral research. You will be actively involved in all levels of the research process, including: performing background literature searches, developing machine learning, perception and control algorithms, designing experiments, implementing code on real robots, maintaining and fixing robots, analyzing and interpreting data, and writing, publishing and presenting research reports.

Required Qualifications

- Strong background in math (Linear algebra, probability theory, optimization, statistics) and programming (Python/C++). Please apply if you are very strong in one and willing to learn the other.
- Organized, responsible, willing to take initiative, and able to work independently
- Prior experience in one or more of the following areas:
    - Machine learning
    - Computer Vision
    - Control theory
    - Reinforcement learning
    - Working with ROS
    - Distributed optimization

Eligibility

Eligible candidates must also apply and be accepted to the Ph.D. program in Computer Engineering in the Electrical and Computer Engineering at the University of Maine.

Compensation

This graduate assistantship includes tuition for up to 19 credits per year, half of the University of Maine graduate health insurance, and a $2000 monthly stipend.

Dates: Beginning January 2022.

Location: USA; University of Maine in Orono, Maine

To Apply

Interested applicants should send the following to Vikas Dhiman vikas.dhiman@maine.edu:

- List of research areas/problems that you might be interested in.
- Resume / CV
- Sample project code that you are proud of or a document of a mathematical proof/assignment that you are proud of.

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