TIP Project Submission & Guidelines Form

Contact Information

Primary Contact

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Executive Sponsor Contact

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Human Resources Contact

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Company Information

	Company Name	*Lawrence Livermore National Laboratory*
	Company Address	*7000 East Ave, Livermore, CA 94550*

Lawrence Livermore National Laboratory (LLNL) is one of the most prestigious research institutions in the world. LLNL is a "first-class" laboratory for science and technology solutions to the toughest and most important problems affecting national and global security. Right now the nation faces tremendous challenges; many of them related to national, economic, energy, and environmental security.

Lawrence Livermore National Laboratory

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Project Information

Project Title	Self-Organizing Collaborative Intelligence
Project Location	*LLNL*

Most of the field of Artificial Intelligence is focused on classification and regression tasks and less work is focused on unsupervised learning. Even less work is focused on the unsupervised collaboration of multiple sensors and artificial intelligence approaches. This project aim at exactly that. Using information theoretic models, like Belief Propagation, the goal is to optimize the collaboration of different AI and other sensor approaches under varying and even adversarial conditions. Applications include autonomous control of drones, combination of sensory input for airport security or multimodal analysis of Internet videos.

Proposed Salary Range	*$*

Special Requirements [X] if applicable

X	US Citizenship	☐	Security Clearance
X	Permanent Resident	☐	Other: _____

Desired Majors [X] if applicable

☐	Aerospace Engineering	☐	Bioengineering	☐	Chemical Engineering
☐	Computer Engineering	X	Computer Science	X	Electrical Engineering
☐	Environmental Engineering	☐	Mechanical Engineering	☐	Nano Engineering
☐	Structural Engineering	☐	Rady School MBA	☐	Cognitive Science
☐	Visual Arts	X	Other: <u>Data Science</u>		

Intern Allocation

Students Desired	Preferred Major	Class Level
2-3	*Data Science*	*Grad or undergrad*
	Computer Science with specialization in machine learning	*Grad or undergrad*
	Electrical Engineering with a specialization in information theory.	*Grad or undergrad*

Skills	
Essential/Required Skills (minimum 3)	
1.	Programming skills.
2.	Machine learning and background in information theory.
3.	Linear algebra.
4.	Statistics.
5.	
Preferred/Desirable Skills	
1.	*Preferred Universities:* UIUC, UC San Diego, UW, Texas A&M, Stanford, Berkeley, CMU
2.	
3.	
3.	
4.	
5.	

Additional Information
Please add any additional information you would like to in the space below.
What they will learn: A glimpse on how to conduct cutting edge research in an interdisciplinary environment.