

Summer Internship Positions National Institutes of Health

Bethesda, Maryland

Computer Vision / Machine Learning / Image & Video Processing

The Computational Bioscience and Engineering Laboratory (CBEL) is looking for motivated students to assist in an ongoing research project aimed at automating behavior and activity detection in video sequence of research animals. The project offers exposure to many disciplines in the fields of computer vision, machine learning, and image/video processing. Prior knowledge in these fields is a plus, although not required. The employment opportunity is summer internship (NIH Summer Internship Program: <https://www.training.nih.gov/programs/sip>) position for students majoring in computer science, electrical engineering, or computer engineering. CBEL is an advanced research and development organization that supports cutting edge biomedical research activities at the National Institutes of Health (NIH).

Majors:	✓ Electrical Engineering	✓ Computer Engineering	✓ Computer Science
Class standing:	Graduate, upper-classman undergraduate.		
Focus:	<i>Automatic video-based tracking and behavior detection for research animals.</i>		
Exposure to:	Cutting edge algorithm development in: <ul style="list-style-type: none"> ➤ Computer vision (foreground/background detection, wide-range of spatial/spatio-temporal feature detection/description methods, image interpretation) ➤ Image processing (registration, filtering) ➤ Machine learning (wide-range of classification/regression methods) ➤ Multi-target tracking methods. ➤ Algorithm parallelization and optimization. ➤ Multi-camera systems. 		
Work environment:	<ul style="list-style-type: none"> ✓ NIH is one of the world's foremost medical research centers ✓ Academic/research environment conducive of learning and innovation ✓ Name recognition (e.g. journal publications, conference presentations) for significant contributions 		
Required background:	<ul style="list-style-type: none"> ❖ Electrical engineering, computer engineering, computer science ❖ Matlab and C programming knowledge and abilities. 		
Time commitment:	Full-time, Summer 2014.		
To apply:	Email resume to: cbel_cv_position@dcb.cit.nih.gov		