COGNITIVE SCIENCE

faculty

Ranked 13th in the nation in cognitive psychology, the department brings together scholars from a variety of disciplines including psychology, neuroscience, linguistics, mathematics, statistics, computer science and others who seek to gain a better scientific understanding of the human mind.

The department is home to five members of the prestigious National Academy of Sciences, nine fellows and two William James fellows of the American Psychological Society, eight fellows of the American Psychological Association and five fellows of the Society for Experimental Psychology.

William Batchelder (Ph.D., Stanford University)
mathematical models of learning and memory, mathematical psychology and measurement

Bruce Berg (Ph.D., Indiana University)
audition, auditory attention, psychophysics of complex sounds, computational models of hearing

Alyssa A. Brewer (M.D., Ph.D., Stanford University)
neuro–imaging of visual perception, visual deficits, neurological disorders

Charles Chubb (Ph.D., New York University)
visual perception, mathematical modeling, histogram contrast analysis

Barbara Dosher (Ph.D., University of Oregon)
human information processing, memory retrieval, attention, visual perception

Michael D'Zmura (Ph.D., University of Rochester)
vision, hearing, language

Emily D. Grossman (Ph.D., Vanderbilt University)
visual perception, neuroimaging

Gregory Hickok (Ph.D., Brandeis University)
neuroanatomy of language, neural plasticity, neuroimaging, cognitive neuroscience

Donald Hoffman (Ph.D., MIT)
machine and human vision, visual recognition, artificial intelligence, virtual reality, consciousness and cognition, shape from motion

Geoffrey Iverson** (Ph.D., New York University)
mathematical psychology, psychophysics, statistics

Jeffrey L. Krichmar (Ph.D., George Mason University)
computational neuroscience, robotics

Michael D. Lee* (Ph.D., University of Adelaide, Australia)
mathematical and computational models of stimulus representation, categorization, memory decision making, problem solving

Virginia Mann (Ph.D., MIT)
reading ability: phoneme awareness, developmental dyslexia, phonological skills, early intervention, precocious readers; speech perception: context effects, cross–linguistic comparisons

Louis Narens (Ph.D., UCLA)
measurement, logic metacognition

Lisa Pearl (Ph.D., University of Maryland)
linguistics, computational linguistics, language development, language change, bayesian models

Virginia Richards (Ph.D., UC Berkeley)
auditory perception and cognition, human psychophysics

Kourosh Saberi** (Ph.D., UC Berkeley)
signal detection, psychophysics, cortical neuroscience, sensory genetics

Barbara Sarnecka (Ph.D., University of Michigan)
cognitive development, language development, number concepts, conceptual change parallels between individual, cognitive development, historical development of science and mathematics

George Sperling (Ph.D., Harvard University)
short–term visual memory systems, attention, visual perception, 3d object recognition, light adaptation, temporal sensitivity contrast, detection motion and texture, perception, stereopsis and attention, brain imaging

Jon Sprouse (Ph.D., University of Maryland)
linguistics, syntax, psycholinguistics

Ramesh Srinivasan (Ph.D., Tulane University)
cognitive neuroscience, brain development, consciousness, perception, eeg, brain dynamics

Mark Steyvers (Ph.D., Indiana University)
semantic influences in recognition and recall, computational models for knowledge extraction, processing dynamic decision making models, causal reasoning, bayesian networks

Joachim Vandekerckhove (Ph.D., University of Leuven, Belgium) response time modeling, model fitting, computational statistics, model evaluation

Charles E. (Ted) Wright (Ph.D., University of Michigan)
cognitive psychology, human motor control, fitts task, aimed movements, handwriting immersive, virtual reality, 1/f noise, quantitative models

*department chair   **graduate director*

investigate

Have you ever wondered how we perceive, learn and solve problems? How our brains organize and store information? How we create and use language? UCI cognitive scientists investigate the brain and behavior, seeking to understand how and why people work the way they do.

Concentrations include cognitive neuroscience, computational and mathematical cognitive modeling, and perception, sensation and action.

innovate

Cognitive science is uniquely positioned at the juncture of the brain and behavior. Combining innovative multidisciplinary approaches and modern tools and methods, UCI cognitive scientists are poised to discover the workings of fundamental human abilities, including attention, memory, language, decision making and problem solving.

impact

The research of UCI cognitive scientists impacts our understanding of memory and language disorders, such as Alzheimer's and aphasia; potentially improves our ability to deal with the information age, suggesting new approaches to online search systems and collaborative decision making; and can enhance education practices, including the development of children's literacy and numeracy skills.

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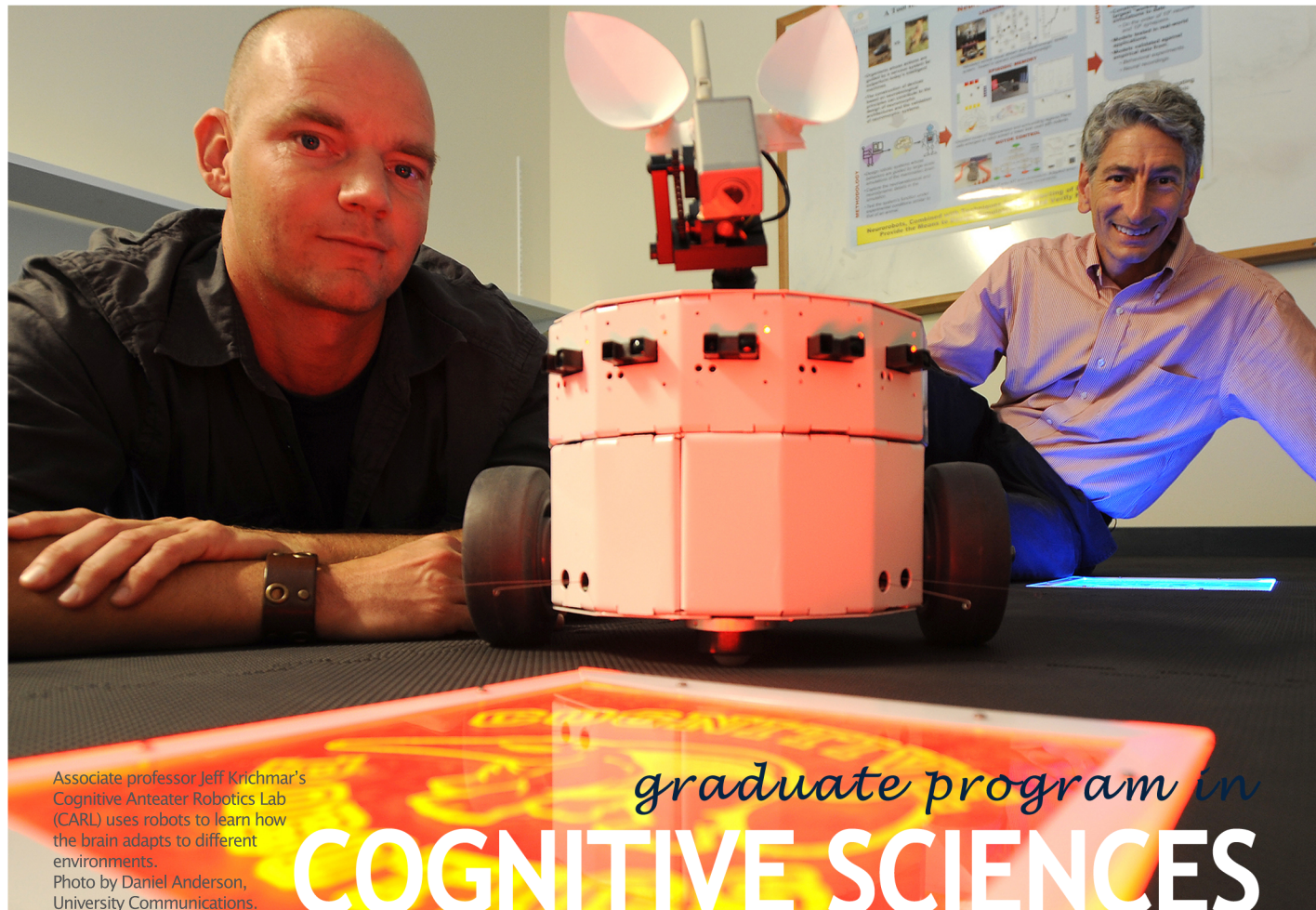
Associate professor Jeff Krichmar's Cognitive Anteater Robotics Lab (CARL) uses robots to learn how the brain adapts to different environments.
Photo by Daniel Anderson, University Communications.

graduate program in COGNITIVE SCIENCES

inspire

UCI cognitive sciences alumni have gone on to pursue careers in some of the best research universities in the world, as well as in government and industry.

Cognitive science skills are valued in applied settings including high-tech startups, research consultancy companies, and government science and technology laboratories.

interested?

Adjacent to Newport Beach's Back Bay, with its miles of scenic nature trails leading to the stunning Pacific Ocean, UC Irvine has been named one of the country's happiest campuses. Located in Irvine, California, a hub for arts, technology and innovation, the area boasts a beautiful and temperate climate year–round and is within an easy drive of both Los Angeles and San Diego. With up to five years of guaranteed financial support for its admitted graduate students, the School of Social Sciences offers an intellectually vibrant community in a sunny, Southern California setting.