Teaching experience summary

Instructor

Virtual Reality for Research

University of Konstanz – Winter Semester 18/19
Computer and Information Science Department

The aim of the course is to guide students in the use of Virtual Reality for the study of psychological research questions. Students learn the basics of the scientific method, how to ask research questions and how to come up with hypotheses that can be tested through experimental designs in Virtual Reality (VR). In the practical session of the class (Übung), I prepared for the students a set of papers in psychology and neurology that employ VR as a research tool. Students must pick one paper, come up with a research question to follow up the research question of the paper and design an experiment in VR to investigate this question. A pilot study with at least ten naïve participants is held and students must present preliminary findings and justify whether their hypothesis is proved or not. At the end of the class, the students will have enough knowledge to apply VR as a tool for their research, and formalize studies to investigate their own research questions.

Introduction to Artificial Intelligence

University of Konstanz – Summer Semester 19
Computer and Information Science Department

The goal of the course is to provide graduate students with comprehensive knowledge of AI principles and techniques by introducing AI's fundamental features and problems, and the algorithms used to undertake these problems. After completing this course, students will be able to compare AI with human intelligence, discuss the strengths and limitations of AI and its application to human-centered problems, discuss the core concepts and algorithms of advanced AI, apply the basic principles, models, and algorithms of AI to recognize, model, and solve problems in the analysis and design of information systems and research questions from different fields.

Philosophy and Ethics of Artificial Intelligence

University of Konstanz – Summer Semester 19
Computer and Information Science Department

The course aims to engage the students in the analysis and discussion about the impact of Artificial Intelligence to the society and foster awareness and responsibility before development. After completing this course, students will be able to think critically about the implication of current and future AI developments, engage in informed discussions about AI from the perspective of philosophy and ethics and prepare measurements to prevent existing and potential risks due to AI developments.

Seminar on Affective Computing

University of Konstanz – Summer Semester 19
Computer and Information Science Department

The course introduces the students to the field of Affective Computing, its core questions, state-of-the-art and open problems. Students will learn about the basic

theories of emotions, state-of-the-art in emotion recognition and synthesis and applications to other fields. After completing the course, the students will be able to come up with ideas and research questions within the field and search the scientific literature, find relevant information and write summaries and short reviews of topics on Affective Computing and engage on informed discussions about Emotion research and the field of Affective Computing.

Teaching Assistant

Operative Systems
Instituto Tecnológico de Costa Rica – 2006/2007
Computer Engineering Department

Operational Research
Instituto Tecnológico de Costa Rica – 2006/2007
Computer Engineering Department