

### **FACULTY MENTOR**

Alon Orlitsky

### **PROJECT TITLE**

Explanation and Visualization of Random Phenomena

### **PROJECT DESCRIPTION**

In recent years, our group has explored multiple aspects of gaining information from data, including accurate distribution estimation, rapid structure computation, robust learning, and teaching both research topics and classical probabilistic foundations.

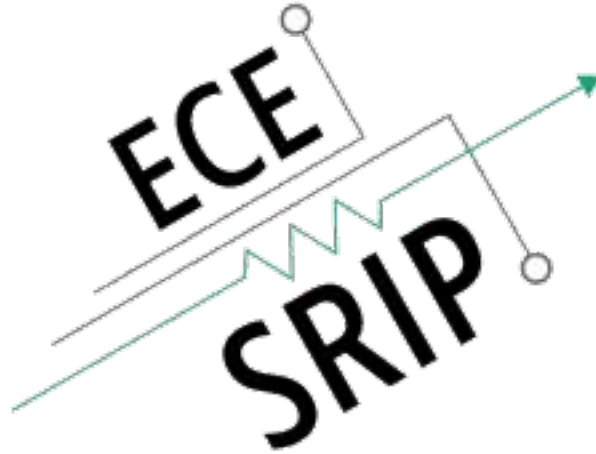
We are looking for interns to develop visualization software for statistical learning algorithms, and to help improve conceptual, practical, and computational aspects of probability education.

### **INTERNS NEEDED**

1-2 MS or BS students

### **PREREQUISITES**

Solid understanding of probability and proficiency in Python.



### **FACULTY MENTOR**

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### **PROJECT TITLE**

Visual and Machine learning Tools for Conference Organization

### **PROJECT DESCRIPTION**

For the past 14 years UCSD has been organizing the Information Theory and Applications Workshop, an annual cross-disciplinary meeting that brings together over 600 researchers applying theory to diverse research areas. ITA is the intellectual home to some of the most prominent researchers in both academia and industry, and features presentations ranging from machine learning, to statistics, signal processing, information theory, communications, computer science, control, economics, bioinformatics, and computational neuroscience.

We are looking for interns to help develop an automated scheduling system that uses the topics, abstracts, and author information of over 450 presentations to derive an initial coherent conference program, and a visual user interface to help improve the program.

### **INTERNS NEEDED**

1-2 MS or BS students

### **PREREQUISITES**

Solid machine-learning and Python proficiency.