

## Deep Learning Integrated with AI Techniques to Solve Visual Surveillance

**Abstract.** The speaker will describe research on integrating deep learning with artificial intelligence techniques in the context of an imagery surveillance prototype designed to automatically identify imagery of interest to a user. The talk will provide an overview of advances in convolutional neural networks, and a set of commonly used patterns in designing their architectures. In particular, the speaker will briefly describe the Image Surveillance Assistant (ISA) architecture, present a study focusing on ISA<sub>1</sub>, ISA's preliminary implementation, and discuss plans for future extensions.

**Biography.** Sambit Bhattacharya holds a PhD in Computer Science and Engineering and has served as a faculty member at Fayetteville State University for more than ten years. He has directed several projects funded by national agencies and industry that have focused on applied research, curriculum development and student engagement. He collaborates with researchers from multiple disciplines in the application of machine learning to bio imaging, integration of deep learning and traditional AI techniques for physical security and surveillance, and robotics. He has delivered numerous presentations and has published over 40 peer-reviewed conference and journal papers.



**Dr. Sambit Bhattacharya**  
Department of  
Mathematics and  
Computer Science  
Fayetteville State University

[sbhattac@uncfsu.edu](mailto:sbhattac@uncfsu.edu)  
<http://faculty.uncfsu.edu/sbhattac/>

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1:00 – 1:50pm  
Room: SCITEC 0144A

Contact: Dr. Kamran Sartipi  
Dept. of Computer Science, ECU  
[www.cs.ecu.edu/sartipi/CSseminar/](http://www.cs.ecu.edu/sartipi/CSseminar/)