

# CSDS 500 Fall 2022 Colloquium

11:30 AM to 12:30 PM  
Thursday, October 27, 2022

(Zoom Meeting ID: 935 2774 6217, Passcode: 946606)

## “ML in Industry: Cast Study with AWS DeepRacer”

**Abstract:** DeepRacer is a 1/18th scale car can learn to drive autonomously using reinforcement learning with a monocular camera. It is trained in simulation with no additional tuning in physical world. Using DeepRacer as an example, the talk will cover the typical life-cycle of ML development in industry. DeepRacer also has many components commonly used in robotics and autonomous vehicles: learning in simulation, using cloud infrastructure, importance of calibration, evaluation of robustness. The talk will walk through each of these aspects and how it impacts navigation of DeepRacer.



**Bharathan Balaji**  
Amazon

**Bio:** I'm a research scientist in Amazon working on applying machine learning to achieve sustainability goals. I'm interested in developing methods and systems that help make the world a better place: by reducing waste, through education, and with automation. I have worked on reinforcement learning, smart buildings and internet of things technologies. I did my PhD in UC San Diego in computer science, where I developed a software stack for buildings for automation, convenience, and saving energy.

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This is to certify that \_\_\_\_\_ attended this seminar. Certified by \_\_\_\_\_.  
Certificates of attendance and other evidence of CPD activity should be retained by the attendee for auditing purposes.



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