**GRADUATE STUDENTS:**

**Please complete & submit *today*.**

**Computer Science Research Seminar ATTENDANCE FORM**

***ONE FORM PER CS STUDENT***

**Date:** September 18, 2020

**Seminar Title: Applications in health-care, assistive technologies, and HCI**

**Name of Speaker: Dr. Vangelis Metsis**

**Your name: Zebo Xiong**

**Your student-id: A04907051 Your major: Computer Science**

1. Summary of the challenges addressed in the given talk

* Data analysis sometimes is not accurate enough and we need better method
* Feature selection has some challenges.
* Problems of coping time series data
* How to collect the data from human

1. Summary of proposed solutions to the stated challenges

* Embedded feature selection methods
* Least Square regression for classification – but add
* Hybrid Structured Sparse Learning for Feature Selection
* Hybrid approach to combine deep learning and machine learning – higher efficiency
* Transfer Learning
* Enhancing LSTM models through attention mechanisms and stateful training.
* Data Collected from special devices (such as Smart-Health, Kinect-based Games)

1. The most interesting thing that you learned from this seminar

* Machine Learning VS Deep Learning
* Time series data analysis for
* Transfer learning

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**Computer Science Research Seminar ATTENDANCE FORM**

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**Date:** September 18, 2020

**Seminar Title: Research in Real-Time Systems**

**Name of Speaker: Dr. Kecheng Yang**

**Your name: Zebo Xiong**

**Your student-id: A04907051 Your major: Computer Science**

1. Summary of the challenges addressed in the given talk

* Logical correctness
* Temporal correctness
* Misconception about real-time systems
* The Window of scarcity
* Predictability
* Verification

1. Summary of proposed solutions to the stated challenges

* Use real-time system to exploit the system
* System execution is governed by a deterministic algorithm
* Scheduler or scheduling algorithm – which generates a scheduled at runtime.
* A feasibility – or schedulability analysis which checks if timing constraints are met.

1. The most interesting thing that you learned from this seminar

* F1Tenth with autonomous driving

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**Computer Science Research Seminar ATTENDANCE FORM**

***ONE FORM PER CS STUDENT***

**Date:** September 18, 2020

**Seminar Title: Intelligent Decision Making Cyber-Physical Systems (CPS)**

**Name of Speaker: Dr. Mina Guirguis**

**Your name: Zebo Xiong**

**Your student-id: A04907051 Your major: Computer Science**

1. Summary of the challenges addressed in the given talk

* Cyber attacks can cause unbearable consequences.
* It will also hurt our real life
* To protect our system and our private data
* Solving the stochastic game

1. Summary of proposed solutions to the stated challenges

* General control loop
* Markov Decision Process
* Find the optimal solution for the computational cost
* Forbid the other players from finding an action that would harm the most

1. The most interesting thing that you learned from this seminar

* Stochastic games
* Protecting CPS with check blocks

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**Computer Science Research Seminar ATTENDANCE FORM**

***ONE FORM PER CS STUDENT***

**Date:** September 18, 2020

**Seminar Title: Green AI**

**Name of Speaker: Dr. Ziliang Zong**

**Your name: Zebo Xiong**

**Your student-id: A04907051 Your major: Computer Science**

1. Summary of the challenges addressed in the given talk

* The AI is powerful but consume energy!
* Very expensive to use AI to find the labels – much more expensive!
* Data privacy about in cloud AI
* Transfer the data on devices – on device AI
* Green AI
* VR Movie
* Green AI goes in the opposite of the Red AI

1. Summary of proposed solutions to the stated challenges

* AI workload analysis – evaluating the energy efficiency of deep CNN on CPU and GPU
* Improving the cost efficiency of large-scale cloud systems running Hybrid workloads
* Layer-wise convolutional neural network
* Explainable AI
* Parallel AI
* Neuromorphic computing

1. The most interesting thing that you learned from this seminar

* How to use algorithm to relief the pain of AI computational cost.
* Explainable AI