MARQUETTE UNIVERSITY

Electrical and Computer Engineering Department Colloquium

Tutorial on the EECE High Performance Computing System and How You Can Use It

Mr. Mutian Zhuang

Affiliated Doctoral Candidate Graduate Student
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Tuesday, February 28, 2023
2:00 pm – 3:00 pm
Olin 202
Open to the Public

Reception in Olin 204
3:00 pm – 3:30 pm

ABSTRACT: Deep learning has become increasingly important impacting engineering in significant and widespread ways. For example, it has enabled breakthroughs in areas such as object recognition, machine translation, and sentiment analysis. It has also led to the development of new products and services, such as self-driving cars and Face ID. Last December, ChatGPT from OpenAi surprised the world with its outstanding performance. In the job market, employment website Indeed.com has listed machine learning engineer as #1 among The Best Jobs in the U.S, and a median salary of $146,085 per year. Future of Jobs Report 2020 predicts that machine learning related industry will create 12 million new jobs in this decade. Since computing resources are essential to a wide range of deep-learning applications they are gaining more importance every day. To further advance its infrastructure for research and teaching, and thanks to the generous donation from Steven and Linda Reyer, the Department of Electrical and Computing at Marquette University has purchased and built its High-Performance Computing (HPC) cluster. The cluster features ten nodes, each equipped with an AMD EPYC 7402P processors, 128GB memory (16GBx8), 2TB PCIe NVMe SSD, and NVIDIA A5000 GPU, designed for deep-learning research and education. In this colloquium we will introduce the EECE HPC system and describe how you can use it for your own research.

BIO: Mutian Zhuang received his B.Sc. in Physics from Jilin University, China, in 2017. He was a research assistant at State Key Laboratory of Superhard Materials, Jilin University. After that, he completed his M.Sc. in Electrical Engineering from Northern Illinois University, USA, in 2021. He is currently a doctoral candidate in the Electrical and Computer Engineering Department, at Marquette University. His research interests include machine learning, signal processing, and smart sensing algorithms for hyperspectral infrared imaging systems.