# **Big Data and Artificial Intelligence Seminar 1:**

## **Cognitive Computing and the Future**

The historic victory of AlphaGo against Master Lee Sedol on the complex game of Go gave us a glimpse of the future when artificial intelligence will change the way we live and work immensely.

It is important and, in fact, necessary for every one of us to learn about the development of big data technology and artificial intelligence, for the benefit of future career and business development.

To help students, professionals and entrepreneurs learn about the latest development of big data and artificial intelligence technologies, we are going to put forward a series of seminars inviting experts in these fields to talk and discuss with us on these topics.

Before AlphaGo stunned all us, IBM's Deep Blue computer had already defeated Chess World Champion Gary Kasparov in 1997. Since then IBM's artificial intelligence system has evolved. In 2011, IBM's cognitive computing system Watson defeated two former winners on the TV game show of Jeopardy! Today Watson system has found real world applications in many fields already. In healthcare, MD Anderson Cancer Center and Memorial Sloan Kettering Cancer Center, two of the most prestigious cancer hospitals have been partnering IBM in developing automated cancer diagnosing and treatment systems.

For the first one of this seminar series, we invited experts from IBM's Watson group to talk about the technologies and applications of cognitive computing systems.

The speakers and their topics are going to be:

- **Dr. Bowen Zhou:** "The Scope of Big Data and the Depth of Cognitive Computing: Watson, Deep Learning and Cloud AI Platform"
- Dr. James Fan: "Artificial Intelligence in the Big Data Era"
- **Dr. Ying Li:** "Creative Design of Color Palettes for Product Packaging An Image Analysis Case Study"
- **Dr. Sabrina Pei-Yun Hseuh:** "The Shift of Healthcare Landscape with Big Data and Cognitive Computing"

Time: April 10, Sunday, 1pm – 5pm

**Venue:** Davis Auditorium, 412 The Schapiro Center for Engineering and Physical Science Research, Columbia University (530 West 120th St., between Broadway and Amsterdam Ave)

(Take subway line 1 to 116<sup>th</sup> St., then follow the map in this link and walk to the place: <u>http://apam.columbia.edu/directions-davis-auditorium-cepsr)</u>

RSVP: Seats are limited, please RSVP via this link: <u>http://goo.gl/forms/V0JaqsC0CO</u>

**Organizers:** Chinese Association of Science and Technology-Greater New York, Chinese Institute of Engineers-Greater New York Chapter, Tianjin University (Peiyang University) Alumni Association in North America, Chiao-Tung University Alumni Association in America-New York (CYUAAA-NY), and North America Chinese Talents Association (NACTA).

### Speaker Bio:

#### Dr. Bowen Zhou:



Dr. Zhou is currently the Chief Scientist of the Watson Group at IBM's T. J. Watson Research Center. He leads IBM's research efforts, across IBM Research and Watson Group, around the creation and application of new state-of-the-art statistical learning techniques, such as deep learning, to make algorithmic advancements in the fields of question answering, natural language understanding, reading comprehension, knowledge acquisition, reasoning and decision making. He also leads the development of cloud services exposing these capabilities in the IBM cloud, and enabling other researchers, developers and offerings to integrate these state-of-the-art algorithms.

He has 80+ publications in the fields of speech recognition, machine translation, speech-tospeech translation, natural language understanding, deep learning and question answering. He has also received a number of IBM Outstanding Innovation Awards, Outstanding Technical Achievement Awards, and the "Best of IBM" award in 2015.

He has a PhD in Electrical and Computer Engineering from University of Colorado at Boulder.

#### Dr. James Fan:



Dr. Fan is the Founder and CEO of Switi, an Artificial Intelligence technology startup focused on the application of bleeding edge natural language processing, multi-media information extraction and question answering on large heterogeneous data.

Previously, he was a Research Staff Member at IBM Research where he co-invented the Watson Jeopardy! system. James won the AAAI Feigenbaum Prize with the IBM Watson Team, and he has 7 patents with half dozen more pending.

He has a PhD in computer Science from University of Texas at Austin.

Dr. Ying Li:



Dr. Li is a research staff member with the Consumer Modeling Group in the Department of Industries and Solutions in IBM's T. J. Watson Research Center.

Her research interests lie in: content-based image processing, analysis and retrieval; video content segmentation, indexing and annotation; multimedia applications; e-learning; data mining, pattern analysis and computer vision, service operations, management and analytics, consumer modeling and computational creativity.

She has a PhD in Multimedia Content Analysis and Management from University of Southern California

## Dr. Sabrina Pei-yun Hsueh:



Dr. Hsueh is currently working in the Group of Computational Behavioral and Decision Science at IBM T.J. Watson Research Center, leading the technical work and thought leadership building initiatives to establish a consumer informatics and instrumented health framework to put patient-generated data in action. She is currently the co-chair of IBM Health Informatics Professional Interest Community (PIC) and the Secretary of Consumer and Pervasive Health Informatics Working Group (CPHI-WG) of American Medical Informatics Association (AMIA). In 2014, she was the co-lead of IBM healthcare global technology topic. Dr. Hsueh specializes in translating real-world problems into pilot designs that can be illuminated with cognitive services on the edge with the adaptive personalization need learned from mobiles/wearables/bio-sensors. She holds 30+ patent disclosures and 40+ peer-reviewed publications. She is also a serial recipient of IBM Innovation and Manager Choice.

She has a Ph.D. in Informatics the University of Edinburgh respectively.