GSE GUIDE AUTUMN EVENT
"On the Wave of AI and Beyond"

Abstracts and Biographies

MONDAY, 18 OCTOBER 2021

09:30-09:45
Welcome & Opening
Peter Groth, President, GUIDE SHARE EUROPE
Michel Plouin, Technical Co-Ordinator France, GUIDE SHARE EUROPE
Pascale Xelot, Director IBM Business Solution Center Nice

09:45-10:30
AI factories & Trustworthy AI - Project Examples and new AI capabilities
Dr. Wolfgang Hildesheim, Director Watson, Data Science & Artificial Intelligence DACH, IBM Germany
Dennis Scheuer, Dennis Scheuer, Leader MVP Team DACH, Data Science Squad, IBM Germany, IBM Germany

Abstract

AI-factories industrialize AI-development and operationalize AI-production. This is needed, because AI-based process automation is more and more used and therefore more and more AI-models need to be managed. In this context trust in the productive AI-model is key. Therefore Europe and Germany focus on the topic "Trustworthy AI" in the upcoming legislation, norms and AI-standards. The talk gives an overview what AI-factories are about and how "Trustworthy AI" can be a competitive edge. Both using current projects and "live" examples of new AI-capabilities.

Biography Dr. Wolfgang Hildesheim

Dr. Wolfgang Hildesheim is a high-energy physicist by education. He worked at CERN and DESY. After more than ten years in research and consulting, he took on the Executive Vice President role for Worldwide Sales and Marketing, of a family-owned company in the area of Big Data and Communication Intelligence. Being a member of the board, he significantly increased revenues and profits. In particular, through individual custom solutions and strong client orientation. In 1997 Wolfgang Hildesheim joined IBM to lead the Automotive, Aerospace and High-Tech Practice. Since 1999 he has been leading IBM`s Big Data Industry Solution Business in Europe and helping client enterprises to become more data driven and create business value by using Analytics. Since 2012 Wolfgang Hildesheim has been responsible for the growth and creating IBM´s Watson Business in Europe, with a major focus on Germany. Watson Solutions are IBM`s answer to the current worldwide Artificial Intelligence (AI) mega trend; offering unmatched intelligent services with a competitive edge. While the risks of a Super AI are overestimated in public discussions and driven by Hollywood, the market opportunity for growth and new jobs related to Narrow AI technologies are underestimated. Wolfgang Hildesheim regularly presents at conferences and publishes articles related to AI.

Biography Dennis Scheuer

Dennis Scheuer is leading the MVP Acceleration Division with a focus on Data Science, Artificial Intelligence and Automation for IBM in Germany, Austria and Switzerland. He consults enterprises on the introduction of effective strategies for artificial intelligence. After studying Business Informatics and graduating as Master of Arts in Strategic Sales Management at ESB Business School Reutlingen, Mr. Scheuer became an integral part of the Watson business unit at IBM in D-A-CH that he jointly grew with numerous clients, business partners and teams - always guided by the mission to make Watson AI an essential part of his clients' strategies and European ecosystem. He currently focusses on the integration of digital assistants and AI, solutions in various industries to solve business challenges we are facing today and improve the client journey with AI. In addition to consulting and implementation of innovation projects, he leads several research activities on the acceptance of AI and the interaction between humans and technology.

11:00-11:45
Realize how your IBM Z is a Premier Hybrid Cloud Citizen
Hélène Lyon, IBM Z Solutions Technical Executive, IBM France

Abstract
You all know how cloud changed IT landscape and you all know how mainframe is critical for many enterprises. Don't be shy to shout to the world how both It's can work together and provide extensive business value.

Biography

Hélène Lyon is recognized worldwide as a technical leader for mainframe solutions now called "IBM Z" or simply "z". She is passionate about the value that z provides to our customers, to IBM business and to the world in general. Her role as an IBM technical executive is to lead European mainframe customers through digital and cognitive transformation; allowing in-transaction analytics while protecting quality of services for their core business; allowing mobile unpredictable demand to get consistent sub-second response time; and allowing optimization of IT Services delivery with scalability & availability needed by business.

11:45-12:30
AI for Society - Students create our future with AI
Dr. Caroline Schmidt, Coordinator Federal AI Pupil Competition, Eberhard-Karls-University Tuebingen, Germany
Theodor Döllmann, Volunteer, Tübingen AI Center, Germany

Abstract
Artificial intelligence has become an integral part of our everyday lives. It is therefore getting more important that young people get to grips with how it works and its potential applications at an early stage. With these goals in mind, the Tübingen AI Center has announced the first national artificial intelligence competition in 2019, in which young people can demonstrate their skills. Students implement their ideas with the tools of artificial intelligence. Many of the projects have received attention from companies after publication or have formed the basis for founding a start-up. In this conference paper, we present individual projects (incl. a web performance for prediction of delays during train connection) that the students have developed and talk about the future potential of young people in the field of artificial intelligence.

Biography Dr. Caroline Schmidt

Dr. Caroline Schmidt works as an outreach coordinator at the Tübingen AI Center - University Tübingen, Germany. She coordinates public activities and events in the field of AI to strengthen such competences of young people. By training, Dr. Caroline Schmidt is a (bio)geoscientist, having worked for more than 10 years as a researcher and lecturer at the University of Tübingen. During her scientific work she coordinated research projects, managed laboratory facilities and raised funding on a national and international basis.

Biography Theo Döllmann

Theo Döllmann graduated at the Kepler-Gymnasium in Tübingen last summer. He works as a Federal Volunteer at the Tübingen AI Center – University Tübingen, Germany and helps to organize the national AI competition called "Bundeswettbewerb Künstliche Intelligenz". He participated and won the competition himself in 2019 with an AI that analyzed over 150,000,000 data points to predict train delays.

13:30-14:15
Using Artificial Intelligence in Cybersecurity
Mark Wilson, Senior Director Consulting Services, BMC Mainframe Services by RSM Partners, Region Manager GUIDE SHARE UK

Abstract
The enterprise attack surface is massive and continuing to grow and evolve rapidly. Depending on the size of your enterprise there are billions of events that need to be analysed to accurately calculate risk. The result? Analysing and improving cybersecurity posture is not a human-scale problem anymore. In response to this unprecedented challenge, Artificial Intelligence (AI) based tools for cybersecurity have emerged to help information security teams reduce breach risk and improve their security posture efficiently and effectively. In this session Mark will discuss some of the technologies that are being developed and describe how they are being deployed and used to help protect our businesses from a cyber-attack.

Biography

Mark Wilson has an extensive background in all things system z. His specialties include:z/OS Consulting and Systems Programming zSeries security, particularly, Security Assessments and Penetration Testing. He is a thought leader and international speaker in mainframe security and technology, IBM Champion and passionate advocate of all things Z. Mark leads the Global BMC Mainframe Services Team. With over four decades of experience in IBM Z across diverse sectors and environments, Mark has worked in both hands-on technical and strategic roles. Additionally, Mark is Guide Share Europe (GSE) UK Region and conference Manager

14:15-15:00
AI and Cognitive Analytics - When will Robotics dominate the World
Eberhard Hechler, Executive Architect, IBM R&D Lab, Germany

Abstract

The promise of AI with Machine Learning, Artificial Neural Networks and its breath-taking range of applications seems to be without limit. Scary for some, and exciting for others, this presentation sheds light on AI and Cognitive Analytics, and describes where the industry is today, including current AI and cognitive limitations. To what degree is autonomous and self-directed learning possible by machines? Where are the limits of AI and Deep Learning? What differentiates a Deep Neural Network from the human brain? Can all cognitive capabilities of humans be learned with Deep Learning methods? This presentation addresses the question when robotics will dominate the world.

Biography

Eberhard Hechler is an Executive Architect at the IBM Germany R&D Lab. He is a member of the DB2 Analytics Accelerator development organization and addresses the broader Data and AI on IBM Z scope, including Machine Learning for z/OS. After 2 ½ years at the IBM Kingston Lab in New York, he has worked in software development, Db2 performance optimization, IT/solution architecture and design, master data management, open source (Hadoop/Spark) integration and Z Analytics. From 2011-2014, he was at IBM Singapore, working as the Asia Pacific Lead Big Data Architect in the Communications Sector of IBM's Software Group. He is a member of the IBM Academy of Technology, and co-authored the following books:

- Enterprise Master Data Management, Pearson, 2008, ISBN: 0132366258
- The Art of Enterprise Information Architecture, Pearson, 2010, ISBN: 0137035713
- Beyond Big Data, Pearson, 2014, ISBN: 013350980X
- Deploying AI in the Enterprise, Apress, 2020, ISBN: 1484262050

15:30-16:15
Deep Learning Strategies for ProtoDUNE Reconstruction
Marco Rossi, PhD Student, Cern, Switzerland

Abstract

The Deep Underground Neutrino Experiment (DUNE) is a forthcoming experiment in neutrino oscillation physics. The study of neutrinos, light and neutral elementary particles, potentially hides answers to fundamental questions regarding the birth of our universe, the unification of fundamental forces and the existence of dark matter. In this context, a prototype of the DUNE Far Detector, ProtoDUNE, is hosted by CERN and collects data to test and calibrate the technologies for the DUNE experiment. Our work aims to implement computational tools, that are able to handle automatically the massive amount of data collected by such detectors. We discuss Deep Learning strategies to address tasks in the reconstruction workchain of useful high-level quantities from ProtoDUNE raw data. Our models leverage Graph Neural Networks on a novel use case, exploiting multi-GPU setups to accelerate training and inference processes. We benchmark our proposed strategies the against state-of-the-art traditional reconstruction algorithms showing great performance improvements.

Biography

Marco Rossi is a second-year doctorate student in Physics at the University of Milan and currently holds a doctorate student position at CERN openlab. His main interests involve applications of Deep Learning to high energy physics, in particular related to reconstruction algorithms in neutrino physics (ProtoDUNE experiment) and the development of automated Monte Carlo simulation software for particle physics processes. In the past, he graduated in Physics (theoretical physics programme) at the University of Milan in 2016 and 2019, bachelor and master degrees respectively.

16:15-17:00
The Uncharted: an Autonomous Ship Project... No captain. No crew. No problem
Eric Aquaronne, Systems Strategy and Q Ambassador, IBM France

Abstract

Witness the creation and maiden voyage of the Mayflower Autonomous Ship (MAS), the first fully autonomous vessel. Created by Promare and partners, this unmanned vessel runs on solar energy and uses IBM AI, automation, cloud and edge technologies to provide a safer, more cost-effective alternative to manned ships. Designed for long-term sea exploration, MAS will gather ocean data for critical issues like global warming, pollution and impacts on marine life.

Biography

Eric Aquaronne is in the Worldwide IBM hardware products strategy team. Eric focuses on how to have a systematical, cohesive approach on: Cloud technologies (making everything work as a cloud, with containers, and in multi-clouds), Artificial Intelligence (Deep Learning, Machine Learning and accelerating training), and Security. Most recently Eric became a Quantum Ambassador, helping companies to assess how to get ready and use this very different and new type of computer. Through this strategic technology focus, Eric is working on very innovative projects like the Mayflower autonomous ship and its cognitive capacities, the CERN collision sensors events selections (10 million collision events per second and a deep learning solution) and to explain use cases and value to client teams, as they face strategic decisions. Prior to this role Eric was the Systems Lab Services Business Unit Executive for CAMS (Cloud, Analytics, Mobile, Social): growing and driving a pool of 1100 experts worldwide, and delivering cloud projects since 2006. Eric has a culture of working in all geographies and cultures with multiple management positions. Since he started with IBM, he has been developing networking products (real time kernels and systems) and OSS/BSS layers, after a master in Electrical Engineering and an MBA.

TUESDAY, 20 OCTOBER 2021

09:00-09:45
Accelerating Analytics on IBM Z and providing access to Db2 for z/OS data for cloud-native applications
Eberhard Hechler, Executive Architect, IBM R&D Lab, Germany

Abstract

This presentation provides a technical overview of the Db2 Analytics Accelerator and Db2 Data Gate, including newest functions, performance aspects (latency, throughput) and the data consistency protocol (reading most recently committed data) of the new integrated synchronization engine between Db2 for z/OS and Db2 LUW. We address Db2 Data Gate public and private cloud deployment options, configuration/sizing topics and prereqs on the IBM Z and Cloud Pak for Data sides, and how to setup the corresponding network. The presentation is complemented with a technical and relevant use case comparison to other replication methods.

Biography

Eberhard Hechler is an Executive Architect at the IBM Germany R&D Lab. He is a member of the DB2 Analytics Accelerator development organization and addresses the broader Data and AI on IBM Z scope, including Machine Learning for z/OS. After 2 ½ years at the IBM Kingston Lab in New York, he has worked in software development, Db2 performance optimization, IT/solution architecture and design, master data management, open source (Hadoop/Spark) integration and Z Analytics. From 2011-2014, he was at IBM Singapore, working as the Asia Pacific Lead Big Data Architect in the Communications Sector of IBM's Software Group. He is a member of the IBM Academy of Technology, and co-authored the following books:

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- Beyond Big Data, Pearson, 2014, ISBN: 013350980X
- Deploying AI in the Enterprise, Apress, 2020, ISBN: 1484262050

09:45-10:30
Modern Data Protection in Cloudy Times
Andreas Wagener, Head of Data Protection, Empalis Consulting GmbH, Germany

Abstract
What are the challenges for your modern IT infrastructure?
How do the current challenges of pandemics, environmental disasters, hacker attacks and ransomware, but also everyday things like working at home or the daily business affect the security of your data?
Stay protected against the risks of everyday IT Life with modern approaches for data protection.

Biography

Andreas Wagener was born in 1970. He can look back to over 30 years of IT experience in various areas:
IT engineering, implementation, architecture design and project management. Currently he works in the field of data protection as a consultant. Besides he has been active in solution architecture and lecturer for over 15 years.

11:00-11:20
Driverless Vehicles- The World of Mobility after 2035
Christine Kraft, ETCS and 5G Senior Project Manager, DB Kommunikationstechnik GmBH, Germany

Abstract
Human involvement is critical to any successful robotics implementation. Despite how they are portrayed in science fiction movies, humans are still needed for decision making, error handling, and troubleshooting in unstructured environments. This is especially true for applications that rely heavily on human intellect or physical abilities. At the other end of the spectrum, there are fully autonomous robots that leave humans out of the equation completely. Fully autonomous robots are responsible for all decisions and actions, as well as all error handling and recovery. They must adapt to different environments and recover from errors on their own. Although popular culture would have us believe that AI-controlled robots are now ready to take over all of humanity, it will be a long time - perhaps several decades - before we see fully autonomous, mobile robotic systems out in the open, simply because robots cannot yet think, act, or respond to adaptations fully on their own, especially in unstructured or changing environments.   Which technologies are currently under development in order to provide the safety for driverless vehicles world after 2035?

Biography

Since 2015, Christine Kraft, Frankfurt (Germany), has implemented the transmission technology along DB railway corridors and further DB digital projects. She has a master's degree in European Studies with a focus on Digital Europe and works as ETCS and 5G Project Manager at DB. Moreover, she has completed missions as an engineer/architect in many countries including Vietnam, Libya, Ireland, Germany, the U.K., and Dubai. Furthermore, Christine has worked for governmental bodies such as the Ministry of Education and Training, Vietnam (MoET), for a World Bank project, etc. Since 2018, Christine works remotely for the European Commission, also, appointed as an expert to assist the Research Executive Agency in evaluating research and innovation programmes. Since 2021 she is an Advocate of European Technology Chamber, mobility and Smart Cities.

Extract from the GUIDE SHARE EUROPE Policy 6

Code of Conduct

0.1   The following Code of Conduct is adopted and shall govern the conduct of all Members, and attendees, in connection with all Association matters and activities.

6.2   Members, and attendees, must:

0.2.0   Conduct themselves and their activities in a professional manner marked by integrity and a spirit of fair play.

0.2.1   Refrain from engaging in any activity that would violate the proprietary rights of their employers, the Association, or any other person or organisation.

0.2.2   Abide by the Statutes and Policies of the Association.

0.2.3   Properly register and display appropriate credentials at Association activities.

0.2.4   Restrict the use of Association documents and other data to the purposes defined.

6.2.6   Comply with the GSE Privacy Policy available on http://www.gse.org/privacy-policy-guide-share-europe/ when working with or using personal data.

0.3   Members, and attendees, must not:

0.3.1   Engage in sales activity, including direct or indirect solicitation, or conduct any other activity contrary to the purposes of the Association.

0.3.2   Distribute any materials or post displays of any kind at Association activities without prior approval of the appropriate Officer.

0.3.3   Engage in any form of personnel recruiting or use Association facilities or resources to assist in such activity.

0.3.4   Use the Association's name, or membership lists, other than in the conduct of the Association's business.

0.4   Any Member, or attendee, who fails to observe this Policy will lose Membership, or will be subject to other appropriate disciplinary proceeding on decision of the Steering Committee.

6.5   Conflict of Interest

0.5.1   No Representative or Delegate of a Member shall hold any position within the Association if the Steering Committee recognises a conflict of interest that would be material or potential between that Member and the Association.