PERSONAL INFORMATION

Bereket Abera YILMA

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GitHub ResearchGate Google Scholar

Homepage: bekyilma.github.io

SUMMARY

Research Scientist at ***Luxembourg Institute of Science and Technology (LIST)***, Luxembourg and recent PhD graduate from ***University of Lorraine (IAEM doctoral school, France)*** at ***CRAN (Research Center for Automatic Control of Nancy)***.

The theme of my research is Human-Centered Artificial Intelligence focusing on Personalization in Cyber-Physical-Social Systems.

WORK EXPERIENCE

5 April 2018 - Present

Research Scientist
Luxembourg Institute of Science and Technology (LIST)

19 July 2017- 30 Mar 2018

Research assistant
FBK(Bruno Kessler Foundation), Trento(Italy)

1 Sep 2016 - 19 July 2017

Research assistant
University of Trento, Trento (Italy)

3 Jan 2013–5 Aug 2015

Digital Strategist
Great Commission Ministry

EDUCATION AND TRAINING

May 2018 – July 2021

Doctor of Philosophy - PhD (Automatic, Signal and image processing, Computer engineering)

University of Lorraine, Nancy (France)

Sep 2015–Dec 2017

Master of Science: Computer Science (Artificial Intelligence)

University of Trento, Trento (Italy)

Specialization:

- Machine Learning
- Big data and social networks analysis
- Data Mining

1 Aug 2011–7 Jul 2014

Bachelor of Science, Computer and Information Sciences

University of Gondar, Gondar (Ethiopia)

SKILLS

Machine learning and cluster computing Frameworks

- Tensorflow, PyTorch, Keras, Apache Spark/Hadoop, scikit-learn, SPaCy and more

Programming Languages

- Python, R, JavaScript, Java, C++, Scala, Shell Scripting, SQL,
- Recently learning Go

Data Visualization

- Plotly - in JavaScript, Python, R
- ggplot - in R
- Dash
- seaborn
- matplotlib - in Python

DBMS

- MySQL, PostgreSQL, Amazon DynamoDB, MongoDB, Amazon Neptune, Neo4j

Semantic Web Technologies

- SPARQL, OWL

LANGUAGES

MOTHER TOUNGE: Amharic

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Italian	A2	A2	A2	A1	A2
French	A1	A1	A1	A1	A1

Professional Services

- **Reviewer:** Future Generation Computer Systems
- **Reviewer:** Computing Journal
- **Reviewer:** 3rd Black in AI Workshop at Neural Information Processing Systems (NeurIPS2019)
- **PC Member:** 4th Black in AI Workshop at Neural Information Processing Systems (NeurIPS2020)
- **PC Member:** 1st workshop Business Informatics in Practice (BIiP2020)

SELECTED PUBLICATIONS

Journal article

- **Bereket Abera Yilma**, Hervé Panetto, and Yannick Naudet."Systemic formalisation of Cyber-Physical-Social System (CPSS): A systematic literature review". In Computers in Industry, Volume 129 :103458, April 2021.

International conferences

- **Bereket Abera Yilma**, Yannick Naudet and Hervé Panetto.*" Towards a Personalisation Framework for Cyber-Physical-Social System (CPSS)".* In the proceedings of the the17th IFAC Symposium on Information Control Problems in Manufacturing(INCOM2021), Budapest, Hungary(Virtual), June 2021.

- **Bereket Abera Yilma**, Yannick Naudet and Hervé Panetto.*" Personalisation in Cyber-Physical-Social Systems: A Multi-stakeholder aware Recommendation and Guidance,"*. In the proceedings of the 29th ACM Conference on User Modeling, Adaptation and Personalization(UMAP '21), June 2021, Utrecht, Netherlands.

- **Bereket Abera Yilma**, Yannick Naudet and Hervé Panetto.*"A New Paradigm and Meta-Model for Cyber-Physical-Social Systems,"* In the proceedings of the 21stIFACWorld Congress in Berlin, Germany, July 2020.

- **Bereket Abera Yilma**, Najib Aghanda, M. Romero, Yannick Naudet and Hervé Panetto.*"Personalised Visual Art Recommendation by Learning Latent Semantic Representations,"*. In the proceedings of the 15th International Workshop on Semantic and Social Media Adaptation and Personalisation(SMAP 2020), Zakynthos, Greece(Virtual)October 2020.

- **Bereket Abera Yilma**, Hervé Panetto, and Yannick Naudet.*"A Meta-Model of Cyber-Physical-Social System: The CPSS paradigm to support Human-Machine collaboration in Industry 4.0,"* In the proceedings of the 20thWorking Conference on Virtual Enterprises(PRO-VE 2019), Turin, Italy, September 2019.

- **Bereket Abera Yilma**, Yannick Naudet and Hervé Panetto.*"Introduction to Personalisation in Cyber-Physical-Social Systems,"* In the proceedings of the 13thOTM/IFAC/IFIPInternational Workshop on Enterprise Integration, Interoperability and Networking(EI2N 2018)Valletta, Malta, October 2018.

- Yannick Naudet, **Bereket Abera Yilma** and Hervé Panetto.*"Personalisation in Cyber-Physical and Social Systems: the Case of Recommendations in Cultural HeritageSpaces"*, In the proceedings of the 13th International Workshop on Semantic and Social Media Adaptation and Personalisation(SMAP 2018)Zaragoza, Spain, September 2018.

Projects

- **Distributed representation based recommender system for e-markets (Item2vec)** - **Research work**
- **Patient profiling and physical activity recommender system for CoachAI Platform:- Research work**
- **Data augmentation for health assisting conversational agents:** - **Research work**

Master's thesis

Constructive preference elicitation and preference learning with Setwise Max-margin for Social choice.

PhD thesis

Personalisation in Cyber-Physical-Social Systems

Certifications

- Deep Learning Specialization - Certificate
- Mastering DIGITAL TWINS - Certificate
- Machine Learning Foundations: A Case Study Approach (from university of Washington in Coursera) Certificate
- Machine Learning: Classification (from university of Washington in Coursera) Certificate
- Machine Learning: Clustering & Retrieval (from university of Washington in Coursera) Certificate
- Machine Learning: Regression (from university of Washington in Coursera) Certificate
- Specialization Machine learning: Build Intelligent Applications (from the University of Washington in Coursera) Certificate
- Neural Networks and Deep Learning(from Stanford University) Certificate
- Python Data Structures (from University of Michigan) Certificate
- Using Python to Access Web Data (from the University of Washington in Coursera) Certificate