

Ahmad S. Tarawneh

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EDUCATION

Eotvos Lorand University (ELTE), Budapest, Hungary

- Ph.D. in Computer Science Sep 2017 – Jun 2021
 - Thesis: Deep Learning Applications in Computer Vision: An Experimental and Comparative Study
 - Adviser: Prof. Dmitry Chetverikov
 - Focus: Deep learning, Machine Learning, Data mining, Computer vision and AI.
 - GPA: Excellent

Mutah University, Alkarak, Jordan

- M.S. in Computer Science Sep 2013 – Oct 2015
 - Thesis: Fusion of Color and Statistical Features for Enhancing CBIR Systems
 - Adviser: Prof. Ahmad B. Hassanat
 - Focus: Data mining, Information retrieval, Computer vision.
 - GPA: Excellent
- B.S. in Computer Information Systems Sep 2008 – Dec 2012
 - GPA: Good

RESEARCH EXPERIENCE

EFOP, ELTE University

- Advanced level Researcher, Department of Algorithms and Their Applications Sep 2018 – Jun 2021
 - Project: Talent management in autonomous vehicle control technologies
 - Supervisor: Prof. Dmitry Chetverikov
 - Focus: Image and video processing, Deep learning, Big Data and Machine learning.

TEACHING EXPERIENCE

Assistant professor, Mutah University

- Assistant professor, Department of Data Science and Artificial intelligence Oct 2023 – Present
 - Focus: Machine learning, Deep learning, and Statistics for Data Science
 - Type: Full-time

Assistant professor, University of Petra

- Assistant professor, Department of Data Science and Artificial Intelligence Oct 2022 – Aug 2023
 - Focus: Big data with Spark and Hadoop and Statistics for Data Science
 - Type: Full-time

Lecturer, Eotvos Lorand University

- Lecturer, Department of Algorithms and Their Applications Sep 2018 – Jun 2020
 - Focus: Image Processing and Computer vision
 - Type: Part-time

Lecturer, Mutah University

- Lecturer, Department of Information Technology Sep 2013 – Jun 2015
 - Focus: Image Processing and Machine learning
 - Type: Part-time

PUBLICATIONS

JOURNALS (SCOPUS/ISI)

- [Ahmad S. Tarawneh](#), Eman S Alamri, Najah Noori Al-Saedi, Mohammad Alauthman, Ahmad B Hassanat, "CTELC: A Constant-Time Ensemble Learning Classifier Based on KNN for Big Data," *IEEE Access*, 2023.
- Eyhab Al-Mahadeen, Mansoor Alghamdi, [Ahmad S. Tarawneh](#), Majed Abdullah Alrowaily, Malek Alrashidi, Ibrahim S Alkhazi, Almoutaz Mbaidin, Anas Ali Alkasasbeh, Mohammad Ali Abbadi, Ahmad B Hassanat, "Smartphone User Identification/Authentication Using Accelerometer and Gyroscope Data," *Sustainability*, 2023.
- I Alkhalwaldeh, M Al-Jafari, M Abdelgalil, [Ahmad S. Tarawneh](#), AB Hassanat, "P-358 A machine learning approach for predicting bone metastases and its three-month prognostic risk factors in hepatocellular carcinoma patients using SEER data," *Annals of Oncology*, 2023.
- Janusz V. Kozubal, Ahmad Hassanat, [Ahmad S. Tarawneh](#), Roman J. Wróblewski, Hubert Anysz, Jónatas Valença, Eduardo Júlio, "Automatic Strength Assessment of the Virtually Modelled Concrete Interfaces Based on Shadow-Light Images," *Construction and Building Materials*, *In press*.

- Issam El khadiri, YoussefEl merabet, Yassine Ruichek, Dmitry Chetverikov, Rachdi El mokhtar, [Ahmad S. Tarawneh](#), “Local ternary pattern based multi-directional guided mixed mask (MDGMM-LTP) for texture and material classification,” *Expert Systems with Applications*, Jun 2022.
- [Ahmad S. Tarawneh](#), Ahmad B. A. Hassanat, Ghada Altarawneh, Abdullah Almuhaimeed, “Stop Oversampling for Class Imbalance Learning: A Review,” *IEEE Access*, Apr 2022.
- [Ahmad S. Tarawneh](#), Ahmad B Hassanat, Esra’a Alkafaween, Bayan Sarayrah, Sami Mnasri, Ghada A Altarawneh, Malek Alrashidi, Mansoor Alghamdi, Abdullah Almuhaimeed, “DeepKnuckle: Deep Learning for Finger Knuckle Print Recognition,” *Electronics*, Feb 2022.
- Ghada A Altarawneh, Ahmad B Hassanat, [Ahmad S. Tarawneh](#), David Carfi, Abdullah Almuhaimeed, “Fuzzy Win-Win: A Novel Approach to Quantify Win-Win Using Fuzzy Logic,” *Mathematics*, Mar 2022.
- Ghada A Altarawneh, Ahmad B Hassanat, [Ahmad S Tarawneh](#), Ahmad Abadleh, Malek Alrashidi, Mansoor Alghamdi, “Stock Price Forecasting for Jordan Insurance Companies Amid the COVID-19 Pandemic Utilizing Off-the-Shelf Technical Analysis Methods,” *Economies*, Feb 2022.
- Ahmad B. A. Hassanat, Hasan Naji, [Ahmad S. Tarawneh](#), Malek Alrashidi, Mansoor Alghamdi, Ghada Altarawneh, Mohammad Ali Abbadi, “Magnetic Force Classifier: A Novel Method for Big Data Classification,” *IEEE Access*, Jan 2022.
- Ahmad B. A. Hassanat, [Ahmad S. Tarawneh](#), Samer Abed, Malek Alrashidi, Mansoor Alghamdi, Ghada Altarawneh, “RDPVR: Random Data Partitioning with Voting Rule for Machine Learning from Class-Imbalanced Datasets,” *Electronics*, Jan 2022.
- Ahmad B. A. Hassanat, Abeer Ahmed Al Bustanji, [Ahmad S. Tarawneh](#), Malek Alrashidi, Hani Alharbi, Mohammed Alanazi, Mansoor Alghamdi, Ibrahim S. AlkhazI, V. B. Surya Prasath, “DeepVeil: Deep learning for identification of face, gender, expression recognition under veiled conditions,” *International Journal of Biometrics*, In press Aug 2021.
- I. El khadiri, [Ahmad S Tarawneh](#), Y. El merabet, Y. Ruichek, R. Touahni, Dmitry Chetverikov, Ahmad B Hassanat, “Petersen Graph Multi-Orientation based Multi-Scale Ternary Pattern (PGMO-MSTP): An Efficient Descriptor for Texture and Material Classification & Recognition,” *IEEE Transactions on Image Processing*, vol. 30, no. -, pp. 4571 - 4586, Oct 2020.
- Ahmad B Hassanat, Sami Mnasri, Mohammed Aseeri, Khaled Alhazmi, Omar Cheikhrouhou, Ghada Altarawneh, Malek Alrashidi, [Ahmad S Tarawneh](#), Khalid Almohammadi, Hani Almoamari, “A Simulation Model for Forecasting COVID-19 Pandemic Spread: Analytical Results Based on the Current Saudi COVID-19 Data,” *Sustainability*, vol. 13, no. 9, pp. 4888, Jan 2021.
- [Ahmad S Tarawneh](#), Ahmad B Hassanat, Khalid Almohammadi, Dmitry Chetverikov, Colin Bellinger, “SMOTEFUNA: Synthetic Minority Over-sampling Technique based on Furthest Neighbour Algorithm,” *IEEE Access*, vol. 8, no. 2, pp. 1-114, Mar 2020.
- Mohammed Aseeri, Ahmad B Hassanat, Sami Mnasri, [Ahmad S Tarawneh](#), Khaled Alhazmi, Ghada Altarawneh, Malek Alrashidi, Hani Alharbi, Khalid Almohammadi, Dmitry Chetverikov, Murad AbdulRaheem Younis, “Modelling-based Simulator for Forecasting the Spread of COVID-19: A Case Study of Saudi Arabia,” *IJCSNS*, vol. 20, no. 10, pp. 1-20, Dec 2020.
- [Ahmad S Tarawneh](#), Ceyhun Celik, Ahmad B Hassanat, Dmitry Chetverikov, “Detailed investigation of deep features with sparse representation and dimensionality reduction in cbir: A comparative study,” *Intelligent Data Analysis*, vol. 24, no. 1, pp. 47-68, Feb 2020.
- Haneen Arafat Abu Alfeilat, Ahmad BA Hassanat, Omar Lasassmeh, [Ahmad S Tarawneh](#), Mahmoud Bashir Alhasanat, Hamzeh S Eyal Salman, VB Surya Prasath, “Effects of Distance Measure Choice on K-Nearest Neighbor Classifier Performance: A Review,” *Big data*, vol. 7, no. 4, pp. 221–248, Dec 2019.
- Piotr Narloch, Ahmad Hassanat, [Ahmad S Tarawneh](#), Hubert Anysz, Jakub Kotowski, Khalid Almohammadi, “Predicting Compressive Strength of Cement-Stabilized Rammed Earth Based on SEM Images Using Computer Vision and Deep Learning,” *Applied Sciences*, vol. 9, no. 23, pp. 5131, Jan 2019.
- Ahmad BA Hassanat, VB Surya Prasath, Mouhammd Al-kasassbeh, [Ahmad S Tarawneh](#), Ahmad J Al-shamailh, “Magnetic energy-based feature extraction for low-quality fingerprint images,” *Signal, Image and Video Processing*, vol. 12, no. 8, pp. 1471–1478, Nov 2018.

- Ahmad B Hassanat, Ghada Altarawneh, Ahmad S Tarawneh, Hossam Faris, Mahmoud B Alhasanat, Alex de Voogt, Baker Al-Rawashdeh, Mohammed Alshamaileh, Surya VB Prasath, “On Computerizing the Ancient Game of Tāb,” *International Journal of Gaming and Computer-Mediated Simulations (IJGCMS)*, vol. 10, no. 3, pp. 20–40, Jul 2018.
- Ahmad BA Hassanat, Ahmad S Tarawneh, “Fusion of Color and Statistic Features for Enhancing Content-Based Image Retrieval Systems ,” *Journal of Theoretical & Applied Information Technology*, vol. 88, no. 3, Jun 2016.
- Mohammad Almseidin, Khaled Alrfou, Nidal Alnidami, Ahmad S Tarawneh, “A comparative study of agile methods: XP versus SCRUM,” *International Journal of Computer Science and Software Engineering (IJCSSE)*, vol. 4, no. 5, pp. 126–129 Jun 2016.

CONFERENCES (SCOPUS)

- Ibraheem M Alkhawaldeh, Ghada Altarawneh, Mohammad Al-Jafari, Mahmoud S Abdelgalil, Ahmad S Tarawneh, Ahmad Hassanat, “A Machine Learning Approach for Predicting Lung Metastases and Three-Month Prognostic Factors in Hepatocellular Carcinoma Patients Using SEER Data” in *2023 IEEE Symposium on Computers and Communications (ISCC)*, IEEE, Jul 2023.
- Ahmad Hassanat, Ghada Altarawneh, Ibraheem M Alkhawaldeh, Yasmeeen Jamal Alabdallat, Amir F Atiya, Ahmad Abujaber, Ahmad S Tarawneh, “The Jeopardy of Learning from Over-Sampled Class-Imbalanced Medical Datasets” in *2023 IEEE Symposium on Computers and Communications (ISCC)*, IEEE, Jul 2023.
- Ahmad B Hassanat, Esra’a Alkafaween, Ahmad S Tarawneh, Samir Elmougy, “Applications Review of Hassanat Distance Metric” in *2022 International Conference on Emerging Trends in Computing and Engineering Applications*, IEEE, Dec 2022.
- Ghusson Ali, Ahmad B Hassanat, Ahmad S Tarawneh, “Recognizing Speech Emotions in Iraqi Dialect Using Machine Learning Techniques” in *2022 International Conference on Emerging Trends in Computing and Engineering Applications*, IEEE, Dec 2022.
- Ahmad S Tarawneh, Ahmad B Hassanat, Issam Elkhadiri, Dmitry Chetverikov, Malek Alrashidi, “K-Means Tree for Fast Furthest Neighbor Approximation” in *2020 16th International Computer Engineering Conference (ICENCO)*, IEEE, Dec 2020.
- Ahmad S Tarawneh, Ahmad B Hassanat, Issam Elkhadiri, Dmitry Chetverikov, Khalid Almohammadi, “Automatic Gamma Correction Based on Root-Mean-Square-Error Maximization” in *2020 International Conference on Computing and Information Technology*, pp. 1–5, IEEE, Sep 2020.
- Mohammad Z Al-Shamaileh, Ahmad B Hassanat, Ahmad S Tarawneh, M Sohel Rahman, Ceyhun Celik, Moohanad Jawthari, “New Online/Offline text-dependent Arabic Handwriting dataset for Writer Authentication and Identification” in *2019 10th International Conference on Information and Communication Systems (ICICS)*, pp. 116-121, IEEE, Jun 2019.
- Audi I Al-Btoush, Mohammad A Abbadi, Ahmad B Hassanat, Ahmad S Tarawneh, Asad Hasanat, VB Surya Prasath, “New Online/Offline text-dependent Arabic Handwriting dataset for Writer Authentication and Identification,” in *2019 10th International Conference on Information and Communication Systems (ICICS)*, pp. 179-184, IEEE, Jun 2019.
- Ahmad S Tarawneh, Ahmad B Hassanat, Ceyhun Celik, Dmitry Chetverikov, M Sohel Rahman, Chaman Verma, “Deep Face Image Retrieval: a Comparative Study with Dictionary Learning,” in *2019 10th International Conference on Information and Communication Systems (ICICS)*, pp. 185-192, IEEE, Jun 2019.
- Chaman Verma, Ahmad S Tarawneh, Zoltán Illés, Veronika Stoffová, Mandeep Singh, “National identity predictive models for the real time prediction of european school’s students: preliminary results,” in *2019 International Conference on Automation, Computational and Technology Management (ICACTM)*, pp. 418-423, London, United Kingdom, IEEE, Apr 2019.
- Ahmad S Tarawneh, Ahmad B Hassanat, Dmitry Chetverikov, Imre Lendak, Chaman Verma, “Invoice Classification Using Deep Features and Machine Learning Techniques,” in *2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT)*, pp. 855-859, IEEE, Apr 2019.

- Chaman Verma, [Ahmad S Tarawneh](#), Zoltan Illes, Veronika Stoffova, Sanjay Dahiya, “Gender prediction of the European school’s teachers using machine learning: Preliminary results,” in *2018 IEEE 8th International Advance Computing Conference (IACC)*, pp. 213-220, IEEE, Dec 2018.
- [Ahmad S Tarawneh](#), Dmitry Chetverikov, Ahmad B Hassanat, “Pilot comparative study of different deep features for palmprint identification in low-quality images,” in *2018 9th Hungarian Conference on Computer Graphics and Geometry, Budapest, Hungary, 2018*, pp. Online, Apr 2018.
- [Ahmad S Tarawneh](#), Dmitry Chetverikov, Chaman Verma, Ahmad B Hassanat, “Stability and reduction of statistical features for image classification and retrieval: Preliminary results,” in *2018 9th International Conference on Information and Communication Systems (ICICS)*, pp. 117-121, IEEE, Apr 2018.
- Chaman Verma, [Ahmad S Tarawneh](#), Veronika Stoffová, Zoltán Illés, “Forecasting residence state of indian student based on responses towards information and communication technology awareness: A primarily outcomes using machine learning,” in *International Conference on Innovations in Engineering, Technology and Sciences*, pp. 1-6, IEEE, Jan 2018.
- Ahmad BA Hassanat, Eman Btoush, Mohammad Ali Abbadi, Bassam M Al-Mahadeen, Mouhammad Al-Awadi, Khalil IA Mseidein, Amin M Almseden, [Ahmad S Tarawneh](#), Mahmoud B Alhasanat, VB Surya Prasath, Fatimah A Al-alem, “Victory sign biometrie for terrorists identification: Preliminary results,” in *2017 8th International Conference on Information and Communication Systems (ICICS)*, pp. 182-187, IEEE, Apr 2017.

KEYWORDS Data Science, Artificial intelligence, Machine learning-Deep learning, Data mining, Big data, Computer vision.

AWARDS & SCHOLARSHIPS

- Ph.D scholarship, Stipendium Hungaricum ELTE University 2017 – 2021
For having (Scopus-indexed Journal) publication related to M.S. Thesis
- Best M.S. Thesis Mutah University 2017
For publishing more than 3 scientific articles related to the M.S. thesis

PRESS COVERAGE

- Machine-Learning Algorithm Aims to Identify Terrorists Using the V Signs They Make. 2016
In MIT Technology Review.

LANGUAGES

- Arabic: Native language.
- English: Proficient
 - IELTS: 7
 - CEFR: C1

SKILLS AND PROGRAMMING LANGUAGES MATLAB, Python, OOP, C++ and C#, Java and JS, M.S. Office, \LaTeX .

LIBRARIES AND APIS Numpy, Tensorflow, Pytourtch, Sklearn, Visualization using Matplotlib.

INTERESTS AND HOBBIES Travelling, Swimming, Programming, Poetry.

REFERENCES

- **Professor Dmitry Chetverikov**
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