MOHD HAFIZUL AFIFI BIN ABDULLAH

Candidate for Doctor of Philosophy in Information Technology
(Machine Learning and Data Science)

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PROFESSIONAL SUMMARY

- Final year Ph.D. candidate in Information Technology at Universiti Teknologi PETRONAS *(waiting for viva voce, expected in early Jan 2025)*.
- Extensive expertise in machine learning and data visualization for real-life data science problems.
- Holds 2 years in industry, 8 years in research, and 5 years of teaching experience.
- Recipient of the Best Tutor Award in the Postgraduate Appreciation Ceremony organized by CGS-UTP and PGSC-UTP (Universiti Teknologi PETRONAS, 2021).
- Certified Graduate Technologist by Malaysia Board of Technologists (No. GT21081682).

ACADEMIC EXPERIENCE

Research Assistant/Teaching Assistant   [Jan 2021 – Present]

Computer and Information Sciences Department, Universiti Teknologi PETRONAS (UTP), Perak, Malaysia.

- **Research Experience:**
  - Conducted PhD research on information extraction from biomedical text data, event extraction, and natural language processing.
  - Performed data quality assessment, collection, transformation, and implementation of machine learning and deep learning techniques.
  - Assisted supervisor in reviewing grant proposal.
  - Co-authored a book on Big Data Analytics and draft a book on Business Intelligence with supervisor.
- **Teaching Assistance Experience:**
  - Teaching UG courses such as Business Intelligence, Big Data Analytics, IT/IS Project Management, Enterprise Resource Planning, IT Infrastructure, Information Security Management.
  - Conducted and prepared materials for lab, tutorial, and workshop sessions.
  - Evaluated and provided constructive feedback on tutorial and lab assignments by UG students.
  - Assisted in invigilating tests and final exams.

Postgraduate Research Attachment	[Apr 2021 – May 2021]
Universitas Muhammadiyah Prof. Dr. HAMKA (UHAMKA), Jakarta, Indonesia.	• Collaborated with research attachment supervisor. • Prepared a KPI dashboard for UHAMKA. • Prepared a collaborative research paper between UHAMKA and UTP.
Trainer/ Assistant Trainer	[2020 – 2022]

Computer and Information Sciences Department, Universiti Teknologi PETRONAS (UTP), Perak, Malaysia.	• Business Analytics using Power BI for Management and Humanities Department, UTP (July 2022).
	• KPT-PENJANA 3.0: Master the Basics of Big Data, AI, and ML for Tomorrow's Workforce (May 2022).
	• KPT-PENJANA 1.0: Digital Transformation for the Future of Works: Big Data, AI and ML (Jan–Feb 2022).
	   o Module 1: Understanding the Future of Works.
	   o Module 2: Introduction to Digital Transformation.
	   o Module 3: Big Data Analytics: Insight to Action.
	• BDA Using Power BI for Lembaga TH (Mar 2021).
	• SKO: Power BI for Finance (Mar 2021).
	• BDA for Oil & Gas Using Power BI (Feb 2021).
	• Big Data Analytics for Business and Beyond (Oct 2020).
	• BDA for PMA Beginner Level (Oct 2020).
	• BDA Course with PETRONAS Staff (Mar 2020).

Graduate Research Assistant	[Mar 2017 – Jan 2019]
Faculty of Computer Science and Information Technology, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia.	• Conducted data collection, pre-processing, and implementation of machine learning techniques. • Assisted as a research assistant to complete a project funded by the Ministry of Higher Education Malaysia. • Published research results in conferences and journals. • Assisted in supervising UG Final Year Projects 1 & 2.

NON-ACADEMIC EXPERIENCE

Special Services	[Dec 2020 – Jan 2021]
Universiti Teknologi PETRONAS (UTP), Perak, Malaysia.	• Assisted PI in conducting workshop sessions. • Prepare research papers and reports.
Research Officer	[May 2020 – Dec 2020]
Centre for Research in Data Science (CeRDaS), Universiti Teknologi PETRONAS, Perak, Malaysia.	• Conducted data understanding, pre-processing, data modeling, and analysis of ML and DL. • Assisted PI in conducting workshop sessions. • Contributed to writing book chapters. • Prepare research papers and reports.

Special Services   [Mar 2020 – May 2020]
Universiti Teknologi PETRONAS (UTP),   • Assisted PI in conducting workshop sessions.
Perak, Malaysia.   • Prepare research papers and reports.

System Analyst Programmer   [Aug 2016 – Feb 2017]
Gates IT Solution Sdn Bhd, Selangor,   • Successfully integrated new features and revamped the
Malaysia.   system's UI/UX following the client's requirements.
                                                • Collaborated with different teams to complete four IT
                                                  projects.
                                                • Participated in daily scrum meetings to report progress
                                                  and plan the next milestones.

QUALIFICATION

Ph.D. in Information Technology (By Research) Computer and Information Sciences Department, Universiti Teknologi PETRONAS (UTP), Perak, Malaysia.	**[2021 – Present]** *Status: Submitted thesis and waiting for VIVA* Supervisor: Assoc. Prof. Ts. Dr. Norshakirah Ab. Aziz Co-Supervisor: Assoc. Prof. Ts. Dr Said Jadid Abdulkadir
Master of Information Technology (By Research) Faculty of Computer Science and Information Technology, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia.	**[2017 – 2021]** Thesis Title: Improved Personalised Data Modelling using Parameter Independent Fuzzy Weighted k-Nearest Neighbour for Spatio/Spectro-Temporal Data Keywords: machine learning, neural networks Supervisor: Dr. Muhaini Binti Othman Co-Supervisor: Assoc. Prof. Dr. Shahreen Binti Kasim
Bachelor's in Computer Science (Web Technology) with Honours Faculty of Computer Science and Information Technology, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia.	**[2013 – 2017]** Thesis Title: Research on Improving Dominant Yeast Genes for Gene Function Prediction Keywords: gene expression, clustering Supervisor: Assoc. Prof. Dr. Shahreen Binti Kasim First Class Honours with CGPA 3.74
Foundation in Science Faculty of Applied Sciences, Universiti Teknologi MARA (UiTM), Puncak Alam Campus, Selangor, Malaysia.	**[2012 – 2013]** • Foundation in Science (Physics, Chemistry, Biology, Additional Mathematics) • CGPA 2.92
SMK Bandar Tun Hussein Onn 2 Hulu Langat, Selangor, Malaysia.	**[2007 – 2011]** • Science Stream (Physics, Chemistry, Biology, Additional Mathematics) • Malaysia Education Certificate (SPM): 9A

PROFESSIONAL BODY CERTIFICATIONS

- Certified Graduate Technologist by the Malaysia Board of Technologists (MBOT).
- EC-Council Network Security Administrator (ENSA) by EC-Council.

COURSES & WORKSHOPS

- Training on Active Learning at CETaL, Universiti Teknologi PETRONAS (16–17 May 2024).
- Producing a High-Quality and Well-Researched Thesis at Universiti Teknologi PETRONAS (Dec 2023).
- Professional Short Course: LaTeX Workshop at Universiti Teknologi PETRONAS (25 Jul 2023).
- Outcome-Based Education & Teaching Approach at Universiti Teknologi PETRONAS (25 May 2022).
- Python for Data Analytics Workshop at Universiti Teknologi PETRONAS (9 Oct 2021).
- Moving Research Forward with ScienceDirect (21 Apr 2021).
- Microsoft Azure Data Science Workshop at Universiti Tun Hussein Onn Malaysia.
- Deploying Hyper-Heuristic & Meta-Heuristic Workshop at Universiti Malaysia Pahang (Dec 2018).
- Laravel Framework 1-Day Course at Universiti Tun Hussein Onn Malaysia (30 Sep 2017).
- Graduate Employability Management Scheme for SSO 2015 (System Development Programme), Malaysia Digital Economy Corporation (Oct–Dec 2015).

CONFERENCES & SYMPOSIUMS

- Presenter at the IAFOR International Conference on Education in Hawaii (IICE2023), 5–8 Jan 2023 (Virtual Conference).
- Presenter at the 2nd International Conference on Emerging Technologies and Intelligent Systems (ICETIS 2022), 2–3 Sep 2022 (Virtual Conference).
- Presenter at the International Conference on Computational Intelligence 2020 (ICCI 2020), 8–9 Oct 2020 (Virtual Conference).
- Presenter at the 4th International Conference on Soft Computing and Data Mining 2020 (SCDM 2020), 22–23 Jan 2020, Melaka, Malaysia.
- Guest Speaker at Ted Talk for Web Technology Department 2017, 23 Apr 2017, UTHM, Malaysia.
- Presenter and Session Chair at the 3rd International Conference on Soft Computing and Data Mining 2018 (SCDM 2018), 6–7 Feb 2018, Johor Baharu, Malaysia.

SKILLS AND ABILITIES

Data Science Tools	:	Microsoft Power BI, Python, VS Code, Azure ML, KNIME Analytics.
Research Writing	:	Mendeley, EndNote, LaTeX, JabRef.
Others	:	Problem-solving, scrum, organizing & analytical thinking skills.

AWARDS & CERTIFICATES

Notable Awards

- King's Scout Award, Scouts Association of Malaysia, 2011.
- Best Tutor Award for Department of Computer & Information Sciences at the 2021 Postgraduate Appreciation Ceremony, Universiti Teknologi PETRONAS, 2021.
- Vice Chancellor's Award, Universiti Tun Hussein Onn Malaysia, 2017.
- The best undergraduate Final Year Project (FYP), Universiti Tun Hussein Onn Malaysia, 2017.

Other Awards
- Gold award for the invention of Performa.my at the Virtual International Research and Innovation Symposium and Exposition 2020 (RISE2020), Universiti Tun Hussein Onn Malaysia (UTHM).
- Platinum award in the International Invention, Innovation & Design Exposition for Built Environment and Engineering 2020 (IIIDBEEX2020), Universiti Teknologi MARA (UiTM).
- Gold award for the invention of Performa.my exhibited at the Virtual Research and Innovation Exhibition UniMAP (eREKA) 2020, Universiti Malaysia Perlis (UniMAP).
- Silver Award in UTHM Research and Innovation Fest 2017 (Student Category).
- Contestant (Bachelor Degree Category) at UTHM Three Minute Thesis (3MT) and Three Minute Report (3MR) Competition 2016, 16 Mar 2016, UTHM, Malaysia.

Research Funding Awards
- Project Type: Fundamental Research Grant Scheme (FRGS 1612)
  Project Title: Improved Spatio-Temporal Data Modelling with Spiking Neural Network Methods for Environmental Event Prediction.
  Project Duration: Aug 2016 – Jan 2019
  Role: Member
- Project Type: Yayasan Universiti Teknologi Petronas (015LC0-277)
  Project Title: Forecasting of Crude Oil Price Using Deep Learning-ANN.
  Project Duration: Feb 2020 – Feb 2023
  Role: Member

NON-ACADEMIC INVOLVEMENTS
- Head of the Publication Bureau 2014/2015 of Perwira Residential College Council, UTHM.
- Chief Editor for SUAMATRA school magazine for the year 2011.
- Represented Malaysian Contingent for the 6th Malaysian-Thailand Border International Scouts Jamboree at the Pak Bang Scout Camp, Satun, Thailand, 2011.

COMPLETED PROJECTS
- Upgrade UI/UX for the MBA Universiti Tun Hussein Onn Malaysia official website.
- Performa.my: Developed a web application for performance satisfaction analysis.
- Developed a web application prototype for Platform Usahawan Johor Interaktif (PUJI).
- Developed the official website for 3A Bundle, Ghali Charity Foundation, Johor i Care Society, and ProofreadMyThesis.
- SSM EzBiz upgrade: Upgraded the system for the Companies Commission of Malaysia (SSM).
- Upgrade the e-Campus system for KUIPSAS.

MEMBERSHIP & VOLUNTARY WORKS
- Graduate Technologist - Malaysia Board of Technologists (No. GT21081682).
- IEEE Member: https://ieee-collabratec.ieee.org/app/p/hafizulamz
- Scientific Committee Member, Annual International Congress on Computer Science (ID: #3212)
- An active member of Ubuntu Malaysia Local Community (LoCo) Team.
- Volunteer at Pertubuhan Kebajikan 'Johor i Care' Negeri Johor (Cancer Support Group).
- Volunteer at One Heart Team (a local charity organization in Parit Raja).

EDITORIAL ACTIVITIES

Review International Journals	• Neural Networks. • Knowledge-Based Systems. • Computers, Materials & Continua (CMC). • Computer Systems Science and Engineering (CSSE). • Journal of King Saud University-Computer and Information Sciences (JKSU-CIS). • Journal of Applied Science, Technology and Computing (JASTEC). • Journal of Soft Computing and Data Mining (JSCDM).
Review International Conferences/Congress	• Annual International Congress on Computer Science, Oxford, United Kingdom (April 2025). • 6th International Conference on Soft Computing and Data Mining (SCDM 2024), Putrajaya, Malaysia. • The First International Conference on Artificial Intelligent and Autonomous System (i-CAIAS 2023), Virtual Conference. • 9th Int. Conference on Computing and Informatics (ICOCI 2023). • The 5th International Conference on Artificial Intelligence in Engineering and Technology (IICAIET2023), Kota Kinabalu, Malaysia. • 8th International Conference on Software Engineering & Computer Systems 2023 (IEEE ICSECS 2023). • 5th International Conference on Soft Computing and Data Mining (SCDM 2022), Online Conference. • 5th International Conference on ICT in Education 2021 (ICTE 2021).

PUBLICATIONS

Summary of Publications

Total Q1/Q2 Manuscripts: 4

	G/Scholar	:	Citations: 182	Documents: 25	*h*-index: 8
	Scopus	:	Citations: 107	Documents: 16	*h*-index: 7
	Web of Science	:	Citations: 40	Documents: 9	*h*-index: 4

Journal Publications

- **Abdullah, M. H. A.**, Aziz, N., Abdulkadir, S. J., Hussain, K., Alhussian, H., & Talpur, N. (2024). A comprehensive review of existing corpora and methods for creating annotated corpora for event extraction tasks. *Journal of Data and Information Science*, 9(4), 1-43.
- **Abdullah, M.H.A.**, Aziz, N., Abdulkadir, S.J., Hussain, K., Alhussian, H. & Talpur, N. A comprehensive review of existing corpora and methods for creating annotated corpora for event extraction tasks. *Journal of Data and Information Science*, 2024, Sciendo, https://doi.org/10.2478/jdis-2024-0029 **(Indexed by ISI/WoS and SCOPUS, Q2 with impact factor 1.5)**
- Talpur, N., Abdulkadir, S. J., Akhir, E. A. P., Hasan, M. H., Alhussian, H., & **Abdullah, M. H. A.** (2023). A novel bitwise arithmetic optimization algorithm for the rule base optimization of deep neuro-fuzzy system. *Journal of King Saud University-Computer and Information Sciences*, *35*(2), 821-842. **(Indexed by ISI/WoS and SCOPUS, Q1 with impact factor 5.102)**
- **Abdullah, M. H. A.**, Aziz, N., Abdulkadir, S. J., Alhussian, H. S. A., & Talpur, N. (2023). Systematic Literature Review of Information Extraction from Textual Data: Recent Methods, Applications, Trends, and Challenges. *IEEE Access*. **(Indexed by ISI/WoS and SCOPUS, Q2 with impact factor 3.476)**

- Talpur, N., Abdulkadir, S. J., Alhussian, H., Hasan, M. H., & **Abdullah, M. H. A**. (2022). Optimizing deep neuro-fuzzy classifier with a novel evolutionary arithmetic optimization algorithm. *Journal of Computational Science*, 64, 101867. ***(Indexed by ISI/WoS and SCOPUS, Q1 with impact factor 3.817)***
- **Abdullah, M. H. A.**, Othman, M., Kasim, S., & Mohamed, S. A. (2019). Evolving spiking neural networks methods for classification problem: a case study in flood events risk assessment. *Indonesian Journal of Electrical Engineering and Computer Science*, 16(1), 222-229.
- Mohamed, S. A., Othman, M., & **Abdullah, M. H. A.** (2019). A review on data clustering using spiking neural network (SNN) models. *Indonesian Journal of Electrical Engineering and Computer Science*, 15(3), 1392-1400.
- Othman, M., Arif, M., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2017). Human resource management on cloud. *JOIV: International Journal on Informatics Visualization*, *1*(4-2), 260-263.
- Othman, M., Shamsudin, S. N., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2017). iBid: A Competitive Bidding Environment for Multiscale Tailor. *JOIV: International Journal on Informatics Visualization*, *1*(4-2), 256-259.
- Othman, M., Nordin, M. S., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2017). Cakelicious: Web App for Designing a Customised Wedding Cakes. *JOIV: International Journal on Informatics Visualization*, *1*(4-2), 236-239.

Conference Proceedings
- Talpur, N., Alier, N. C. G., Matsom, H., **Abdullah, M. H. A.**, & Khatoon, S. (2024). Predicting Employee Performance using Machine Learning to Enhance Workforce Efficiency. In *2024 8th International Conference on Computing, Communication, Control and Automation (ICCUBEA)* (pp. 1-4). IEEE.
- Aziz, N., Akhir, E. A. P., Abdulkadir, S. J., Alhussian, H. S. A., & **Abdullah, M. H. A.** (2023). Development of Analytical Thinking Using Flipped Classroom Approach for Big Data Analytics Courses. In *The IAFOR International Conference on Education-Hawaii 2023 Official Conference Proceedings 2023* (pp. 679-696). The International Academic Forum (IAFOR).
- **Abdullah, M. H. A.**, Aziz, N., Abdulkadir, S. J., Akhir, E. A. P., & Talpur, N. (2023). Event Detection and Information Extraction Strategies from Text: A Preliminary Study Using GENIA Corpus. In *International Conference on Emerging Technologies and Intelligent Systems* (pp. 118-127). Springer, Cham.
- Aziz, N., **Abdullah, M. H. A.**, Osman, N. A., Musa, M. N., & Akhir, E. A. P. (2023). Predictive Analytics for Oil and Gas Asset Maintenance Using XGBoost Algorithm. In *International Conference on Emerging Technologies and Intelligent Systems* (pp. 108-117). Springer, Cham.
- N. Aziz, **M. H. A. Abdullah** and A. N. Zaidi, "Predictive Analytics for Crude Oil Price Using RNN-LSTM Neural Network," *2020 International Conference on Computational Intelligence (ICCI)*, Bandar Seri Iskandar, Malaysia, 2020, pp. 173-178.
- **Abdullah, M. H. A.**, Othman, M., Kasim, S., Saharuddin, S. S., & Mohamed, S. A. (2020, January). A Spiking Neural Networks Model with Fuzzy – Weighted k – Nearest Neighbour Classifier for Real-World Flood Risk Assessment. In *International Conference on Soft Computing and Data Mining* (pp. 222-230). Springer, Cham.
- Othman, M., Mohamed, S. A., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2018). A Framework to Cluster Temporal Data Using Personalised Modelling Approach. *Advances in Intelligent Systems and Computing*, 181-190.
- Othman, M., Halil, N. M., Yusof, M. M., Mohamed, R., & **Abdullah, M. H. A.** (2018). Empowering self-management through m-health applications. In *MATEC Web of Conferences* (Vol. 150, p. 05018). EDP Sciences.

- Othman, M., Mohamed, S. A., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2018). A Framework to Cluster Temporal Data Using Personalised Modelling Approach. *Advances in Intelligent Systems and Computing*, 181-190.
- Kasim, S., Fudzee, M. F., Salamat, M. A., Ramli, A. A., Mahdin, H., & **Abdullah, M. H. A.** (2016). An improved computational framework using one stage filtration by incorporating knowledge in gene expression clustering. *Proceedings of the International Conference on Artificial Intelligence and Robotics and the International Conference on Automation, Control and Robotics Engineering (ICAIR-CACRE '16)*.

Book/Book Chapters
- Aziz, N. A., Akhir, E. A. P., Kadir, S. J. A., Alhussian, H., Osman, N. A., & **Abdullah, M. H. A.** (2023). *Data Analytics Using Python*. UTP Press. [ISBN: 978-967-2880-58-5]
- **Abdullah, M. H. A.**, Othman, M., & Kasim, S. Comparative Analysis of Spatio/Spectro-Temporal Data Modelling Techniques. *Data Engineering and Information Security*.
- Yusof, M.M., Rosli, N.F., Othman, M., Mohamed, R., **Abdullah, M.H.A.** (2018). M-DCocoa: M-Agriculture Expert System for Diagnosing Cocoa Plant Diseases. In: Ghazali, R., Deris, M., Nawi, N., Abawajy, J. (eds) *Recent Advances on Soft Computing and Data Mining. SCDM 2018. Advances in Intelligent Systems and Computing*, vol 700. Springer, Cham.

REFERENCES

References are available upon request.