

Aashish Bhandari

aashishbhandari.com



EDUCATION

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| 2024- | RMIT UNIVERSITY | MELBOURNE, AUSTRALIA |
| | <i>Doctor of Philosophy (Ph.D.) in Computer Science</i>
<i>Research on using multimodal learning for personalised medicine</i> | |
| 2019-2023 | DELHI TECHNOLOGICAL UNIVERSITY | NEW DELHI, INDIA |
| | <i>B.Tech. in Computer Engineering</i>
<i>Artificial Intelligence, Machine Learning, Data Structures, Algorithm Design & Analysis</i> | |
| | <ul style="list-style-type: none">CGPA: 8.95 out of 10 Research component (Thesis): <i>Leveraging multimodal information in speech data for the non-invasive detection of Alzheimer's disease, Grade: A+</i> | |

EXPERIENCE

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| NORTHERN HEALTH | MELBOURNE, AUSTRALIA |
| <i>Honorary Researcher</i> | <i>Dec 2025 – Present</i> |
| <ul style="list-style-type: none">Data science research on Northern Health population healthcare data | |
| RMIT UNIVERSITY | MELBOURNE, AUSTRALIA |
| <i>Casual Sessional: Computing Technologies</i> | <i>Feb 2024 – Present</i> |
| <ul style="list-style-type: none">Teaching Foundations of Artificial Intelligence for STEM (COSC2960) | |
| UNIVERSITY OF TECHNOLOGY SYDNEY (UTS) | SYDNEY, AUSTRALIA & REMOTE |
| <i>Visiting Scholar</i> | <i>Feb 2022 – Dec 2023</i> |
| <ul style="list-style-type: none">Honorary appointment as a visiting scholar at the University of Technology Sydney (UTS)Designed, developed, and tested conversational agent prototypes that aim to integrate conversational user interfaces into everyday items around us at home to improve positive practices and habits. | |
| <i>Research Assistant & Software Developer</i> | <i>May 2022 – Aug 2022</i> |
| <ul style="list-style-type: none">Conducting research work with the Faculty of Engineering and IT, University of Technology Sydney (UTS) on conversational agents, proactive experiences and self-reflection. Developing multiple agents for the project.Designing fine-tuned diffusion and large language models (LLMs) for multiple domains. | |
| DELHI TECHNOLOGICAL UNIVERSITY (DTU) | NEW DELHI, INDIA |
| <i>Undergraduate Researcher</i> | <i>Jan 2022 - Present</i> |
| <ul style="list-style-type: none">Conducting research work with Dr. Prashant Giridhar Shambharkar, Assistant Professor, Department of Computer Science and Engineering, Delhi Technological (DTU), on using artificial intelligence for healthcare applications.Reviewer for IEEE International Joint Conference on Neural Network (IJCNN) | |

PUBLICATIONS

- Bhandari, A.,** Mehta, D., Verspoor, K., Spina, D., Xia, F., & Tyagi, S. (2026). PregBase: A comprehensive knowledge base for clinically relevant knowledge representation and biomarker prediction in pregnancy. Artificial Intelligence in Medicine, 103510. <https://doi.org/10.1016/j.artmed.2026.103510>

- Bhandari, A., & Tyagi, S. (2026). A comparative evaluation of handling missing data points and modalities in electronic health records. *International Journal of Medical Informatics*, 106302. <https://doi.org/10.1016/j.ijmedinf.2026.106302>
- Mainwood, S., **Bhandari, A.**, & Tyagi, S. (2025). Semantic Encoding in Medical LLMs for Vocabulary Standardisation. *medRxiv*, 2025-06. <https://doi.org/10.1101/2025.06.16.25329716>
- Shiwakoti, S., Thapa, S., Rauniyar, K., Shah, A., **Bhandari, A.**, & Naseem, U. (2024). Analyzing the dynamics of climate change discourse on twitter: A new annotated corpus and multi-aspect classification. In *Joint 30th International Conference on Computational Linguistics and 14th International Conference on Language Resources and Evaluation, LREC-COLING 2024* (pp. 984-994). European Language Resources Association (ELRA). <https://aclanthology.org/2024.lrec-main.88/>
- **Bhandari, A.***, Shah, S. B.*, Thapa, S.*, Naseem, U., & Nasim, M. (2023). CrisisHateMM: Multimodal Analysis of Directed and Undirected Hate Speech in Text-Embedded Images from Russia-Ukraine Conflict. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)* (pp. 1993-2002) (A*) ([paper link](#)) [No.1 publication in Engineering & Computer Science according to Google Scholar Metrics]
- Shah, S. B., **Bhandari, A.**, & Shambharkar, P. G. (2023, July). Leveraging multimodal information in speech data for the non-invasive detection of alzheimer's disease. In *2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT)* (pp. 1-6). IEEE. [10.1109/ICCCNT56998.2023.10307469](https://doi.org/10.1109/ICCCNT56998.2023.10307469)
- Bérubé, C., Nißen, M., Vinay, R., Geiger, A., Budig, T., **Bhandari, A.**, ... & Kocaballi, A. B. (2024). Proactive behavior in voice assistants: A systematic review and conceptual model. *Computers in Human Behavior Reports*, 14, 100411. <https://doi.org/10.1016/j.chbr.2024.100411>
- Smith, J., **Bhandari, A.**, Yuksel, B., & Kocaballi, B. (2022). An Embodied Conversational Agent to Minimize the Effects of Social Isolation During Hospitalization. In *ACIS 2022 Proceedings*. 87. <https://aisel.aisnet.org/acis2022/87>
- Shah, S. B., **Bhandari, A.**, & Shambharkar, P. G. (2022, November). Deep Learning Methods For COVID-19 Mitigation: Applications, Challenges and Future Implications. In *2022 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)* (pp. 775-781). IEEE. [10.1109/ICCCIS56430.2022.10037702](https://doi.org/10.1109/ICCCIS56430.2022.10037702)
- **Bhandari, A.**, Shah, S. B., & Shambharkar, P. G. (2022, October). The Confluence of AI and Blockchain in Tackling the COVID-19 Pandemic. In *2022 13th International Conference on Computing Communication and Networking Technologies (ICCCNT)* (pp. 1-6). IEEE. [10.1109/ICCCNT54827.2022.9984223](https://doi.org/10.1109/ICCCNT54827.2022.9984223)

HONORS AND AWARDS

- 3 Minute Thesis (3MT) Competition Winner, School of Computing Technologies, STEM College, RMIT University (2026).
- Best Fast Forward Talk Award Recipient at the Australian Mathematical Sciences Institute (AMSI) BioInfoSummer 2024.
- People's Choice Award for the research 'Towards a Preg-KnowledgeBase for Personalised Risk Prediction of Adverse Pregnancy Outcomes at the 2024 EIP-RACE Demonstrator Competition (Enabling Impact Platforms (EIPs) and RMIT Advanced Cloud Ecosystem (RACE))
- Honorary appointment as a visiting scholar at the University of Technology Sydney (UTS)
- Runner Up DH CRC sponsored Best Paper Award for the Digital Health Track at the Australasian Conference on Information Systems 2022
- Karate Black Belt at the age of 12, a recognized diploma (Black Belt) received from Nepal Shotokan Karate Association (S.K.I.F) (18/09/2013), silver medalist in individual kumite at 2011 and 2012 Indo-Nepal Karate Championship, and gold, silver and bronze medalist in individual kumite, kata and team kumite at South Asian Shotokan Karate Championship 2013.

TECHNICAL SKILLS

- Programming Languages: Python, C/C++, HTML, CSS, JavaScript
- Packages: Scikit-Learn, Keras, TensorFlow, NumPy, Pandas, Matplotlib, Seaborn, Jupyter Notebook
- Industry Knowledge: ML Algorithms, Deep Learning, Model Development, Data Visualization, Shopify Development