

Hazem A. A. Nomer

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Bio

- 📖 Hazem Nomer is a machine learning researcher based in the Netherlands. He is a PhD student at Erasmus University Medical Center (Erasmus MC). He is currently working on deep learning models for automated treatment planning in radiotherapy. He is interested in the intersection between deep learning and optimization problems.

Employment History

- 2022 – ···· 📖 **Researcher in Training** Erasmus MC.
- 2021 – 2022 📖 **Machine Learning Software Engineer.** Siemens EDA (Siemens Digital Software Industries).
- 2020 – 2021 📖 **Research Assistant.** Wireless Intelligent Networks Center (WINC), School of Engineering and Applied Sciences, Nile University.
📖 **Teacher Assistant.** Faculty of Computer Science and Engineering, AL-Alamein International University.
- 2018 – 2020 📖 **Teacher Assistant.** Basic Science Department, Faculty of Engineering, PHAROS University in Alexandria.
📖 **Teacher Assistant.** Faculty of Computer Science and Data Science, Alexandria University.
📖 **Product Owner.** Sayal Travelling Agency (Sayal Tech).
- 2016 – 2018 📖 **Junior Teacher Assistant.** Faculty of Engineering, Alexandria University.

Education

- 2022 – 2026 📖 **PhD. Erasmus University in Rotterdam.**
Project: *INSTORAD: Instantaneous treatment planning in radiotherapy using Deep Learning.*
- 2016 – 2020 📖 **M.Sc. Computer Science, Alexandria University.**
Thesis title: *Solving combinatorial optimization using neural networks.*
- 2011 – 2015 📖 **B.Sc. Computer Science, Alexandria University .**
Thesis title: *Adaptive user interfaces for mobile phones.*

Skills

- Languages 📖 English (Academic IELTS score:7.5),Arabic,French,Dutch.
- Coding 📖 Python, C++, C#, Java, Keras, TensorFlow, Matlab, \LaTeX .

Research Publications

Journal Articles

- 1 H. A. A. Nomer, F. Knuth, J. van Genderingen, *et al.*, "Deep learning prediction of scenario doses for direct plan robustness evaluations in impt for head-and-neck," *Physics in Medicine Biology*, 2024. [🔗 URL: http://iopscience.iop.org/article/10.1088/1361-6560/ad8c95](http://iopscience.iop.org/article/10.1088/1361-6560/ad8c95).
- 2 S. Mohamed, H. A. A. Nomer, R. Yousri, A. W. Mohamed, A. Soltan, and M. S. Darweesh, "Energy management for wearable medical devices based on gaining-sharing knowledge algorithm," *Complex Intell. Syst.*, 2023. [🔗 DOI: 10.1007/s40747-023-01101-8](https://doi.org/10.1007/s40747-023-01101-8).
- 3 R. M. Tawfik, H. A. A. Nomer, M. S. Darweesh, A. W. Mohamed, and H. Mostafa, "Uav-aided data acquisition using gaining-sharing knowledge optimization algorithm," *Computers, Materials & Continua*, vol. 72, no. 3, pp. 5999–6013, 2022, ISSN: 1546-2226. [🔗 DOI: 10.32604/cmc.2022.028234](https://doi.org/10.32604/cmc.2022.028234).
- 4 H. A. A. Nomer, K. A. Alnowibet, A. Elsayed, and A. W. Mohamed, "Neural knapsack: A neural network based solver for the knapsack problem," *IEEE Access*, vol. 8, pp. 224 200–224 210, 2020. [🔗 DOI: 10.1109/ACCESS.2020.3044005](https://doi.org/10.1109/ACCESS.2020.3044005).

Conference Proceedings

- 1 H. A. A. Nomer, A. W. Mohamed, and A. H. Yousef, "GSK-RL: Adaptive gaining-sharing knowledge algorithm using reinforcement learning," in *2021 3rd Novel Intelligent and Leading Emerging Sciences Conference (NILES)*, 2021, pp. 169–174. [🔗 DOI: 10.1109/NILES53778.2021.9600551](https://doi.org/10.1109/NILES53778.2021.9600551).

Miscellaneous Experience

Volunteer Work

- 2015
- 📌 IEEE Alexandria Student Branch Website committee volunteer.
 - 📌 **Technical Committee Head** at Robabkia Team.

Awards and Achievements

- 📌 **Winner of NASA SPACE APPS Human Challenge held at Nile University,** Awarded by NASA.

References

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