

Lien-Minh Dang

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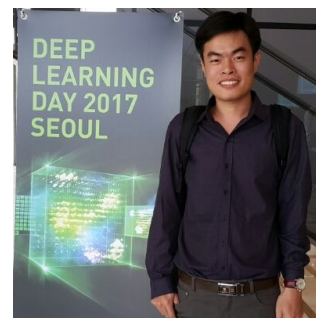
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26th June 1993

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Education

- 03/2017 – 08/2021 **Combined Masters/PhD. Computer Science and Engineering, Sejong University, Seoul, Korea.**
Thesis title. Deep Learning-based Structural Defect Assessment and Contextual Information Analysis for Highly Imbalanced Datasets.
- 09/2011 – 06/2016 **B.Sc. (Hons) Information Systems Engineering, University of Information Technology (UIT), Vietnam National University (VNU).**
First Class Honours. Department prize for outstanding performance.

Employment

- 09/2021 – Present **Postdoc position, Sejong University.** Doing research and writing papers related to computer vision and ML.
- 02/2018 – Present **Server manager.** Manages 4 servers and creates necessary environments for the students to practice (Linux, Java, Oracle, and Mysql).
- 06/2016 – 03/2017 **Teaching assistant.** E-commerce Department, School of Information System, University of Information Technology UIT .
- 04/2015 – 01/2016 **Part-time Ruby on rails developer.** VNITS, Mainly built websites for Vietnam's companies and organizations using Ruby.
- 07/2014 – 10/2014 **Intern** TMA company, Strengthen hands-on experiences and knowledge in the big company environment.

Research Experience

- 03/2017 – 08/2021 **Computer vision and pattern recognition lab, Sejong University**
The main research is about computer vision, sequence data processing, and deep learning.
- 10/2014 – 06/2016 **Research assistant in the E-commerce Department.** Involved in a research project, related to the prediction of the stock market trend using machine learning, natural language processing, and text-mining. Founded the IS research group of the E-commerce department.
- 10/2011 – 10/2012 **Research assistant.** Participated in building an English-Vietnamese Bilingual Corpus.

Skills

- Coding **Python, C++ , PHP, SQL, XML/XSL, NET, C#.NET.**
- Deep learning Lib **Tensorflow and Torch.**

Skills (continued)

- Database ▣ MySQL, PostgreSQL, HSQL, SQLite.
- Languages ▣ English: Strong reading, writing, and speaking competencies (IELTS 7.0, TOEIC 970)
Korean: Intermediate reading and listening competencies (사회통합프로그램)
Vietnamese: First language.
- Misc. ▣ Academic research, teaching, training, consultation, and \LaTeX typesetting and publishing.

Publication

SCIE journal

- 1 Chen, Y., Li, Y., Wang, H., **Dang, L. M.**, Song, H.-K., & Moon, H. (2023). Deep learning based underground sewer defect classification using a modified regnet. *Computers, Materials & Continua*, Accepted [IF: 3.860, Q2].
- 2 **Dang, L. M.**, Wang, H., Li, Y., Nguyen, L. Q., Nguyen, T. N., Song, H.-K., & Moon, H. (2023). Lightweight pixel-level semantic segmentation and analysis for sewer defects using deep learning. *Construction and Building Materials*, 371, 130792 [IF: 7.693, Q1].
- 3 Li, Y., Wang, H., **Dang, L. M.**, Song, H.-K., & Moon, H. (2023). Attention-guided multiscale neural network for defect detection in sewer pipelines. *Computer-Aided Civil and Infrastructure Engineering*, Accepted [IF: 10.066, Q1].
- 4 Ahmad, S., Khan, S., Fahad, M., Kumar Dutta, A., **Dang, L. M.**, Prasad Joshi, G., & Moon, H. (2022). Deep learning enabled disease diagnosis for secure internet of medical things. *Computers, Materials & Continua*, 73(1), 965–979 [IF: 3.860, Q2].
- 5 **Dang, L. M.**, Lee, S., Li, Y., Oh, C., Nguyen, T. N., Song, H.-K., & Moon, H. (2022). Daily and seasonal heat usage patterns analysis in heat networks. *Scientific Reports*, 12(1), 1–12 [IF: 4.996, Q2].
- 6 **Dang, L. M.**, Wang, H., Li, Y., Nguyen, L. Q., Nguyen, T. N., Song, H.-K., & Moon, H. (2022). Deep learning-based masonry crack segmentation and real-life crack length measurement. *Construction and Building Materials*, 359, 129438 [IF: 7.693, Q1].
- 7 **Dang, L. M.**, Wang, H., Li, Y., Nguyen, T. N., & Moon, H. (2022). Defecttr: end-to-end defect detection for sewage networks using a transformer. *Construction and Building Materials*, 325, 126584 [IF: 7.693, Q1].
- 8 **Dang, L. M.**, Wang, H., Li, Y., Park, Y., Oh, C., Nguyen, T. N., & Moon, H. (2022). Automatic tunnel lining crack evaluation and measurement using deep learning. *Tunnelling and Underground Space Technology*, 124, 104472 [IF: 6.407, Q1].
- 9 Li, Y., Wang, H., **Dang, L. M.**, Piran, M. J., & Moon, H. (2022). A robust instance segmentation framework for underground sewer defect detection. *Measurement*, 190, 110727 [IF: 5.131, Q1].
- 10 Li, Y., Wang, H., **Dang, L. M.**, Song, H.-K., & Moon, H. (2022). Vision-based defect inspection and condition assessment for sewer pipes: a comprehensive survey. *Sensors*, 22(7), 2722 [IF: 3.847, Q2].

- 11 Nguyen, L. Q., **Dang, L. M.**, Li, Y., & Moon, H. (2022). Facial landmark detection with learnable connectivity graph convolutional network. *IEEE Access*, 94354–94362 [IF: 3.476, Q2].
- 12 Nguyen, T. N., **Dang, L. M.**, Lee, J., & Nguyen, P. V. (2022). Load-carrying capacity of ultra-thin shells with and without cnts reinforcement. *Mathematics*, 10(9), 1481 [IF: 2.592, Q1].
- 13 Nguyen, T. N., Lee, J., Dinh-Tien, L., & **Dang, L. M.** (2022). Deep learned one-iteration nonlinear solver for solid mechanics. *International Journal for Numerical Methods in Engineering*, 123(8), 1841–1860 [IF: 3.021, Q2].
- 14 Nguyen, T. K., **Dang, L. M.**, Song, H.-K., Moon, H., Lee, S. J., & Lim, J. H. (2022). Wild chrysanthemums core collection: studies on leaf identification. *Horticulturae*, 8(9), 839 [IF: 2.9523, Q1].
- 15 Oh, C., **Dang, L. M.**, Han, D., & Moon, H. (2022). Robust sewer defect detection with text analysis based on deep learning. *IEEE Access*, 10, 46224–46237 [IF: 3.476, Q2].
- 16 Saravanan, M., Jayanthi, J., Sakthi, U., Rajkumar, R., Joshi, G. P., **Dang, L. M.**, & Moon, H. (2022). Intelligent satin bowerbird optimizer based compression technique for remote sensing images. *CMC-COMPUTERS MATERIALS & CONTINUA*, 72(2), 2683–2696 [IF: 3.860, Q2].
- 17 Wang, H., Li, Y., **Dang, L. M.**, & Moon, H. (2022). An efficient attention module for instance segmentation network in pest monitoring. *Computers and Electronics in Agriculture*, 195, 106853 [IF: 6.757, Q1].
- 18 **Dang, L. M.**, Kyeong, S., Wang, H., Li, Y., & Moon, H. (2021). Deep learning-based sewer defect classification for highly imbalanced dataset. *Computers and Industrial Engineering*, 108, 107630 [IF: 7.180, Q1].
- 19 **Dang, L. M.**, Wang, H. X., Li, Y. F., & Nguyen, T. N. (2021). Explainable artificial intelligence: a comprehensive review. *Artificial Intelligence Review*, 1–66 [IF: 9.588, Q1].
- 20 Min, K., **Dang, L. M.**, & Moon, H. (2021). Deep learning-based short story generation for an image using the encoder-decoder structure. *IEEE Access*, 9, 113550–113557 [IF: 3.476, Q2].
- 21 Park, Y., **Dang, L. M.**, Lee, S., Han, D., & Moon, H. (2021). Multiple object tracking in deep learning approaches: a survey. *Electronics*, 10(19), 2406 [IF: 2.690, Q3].
- 22 Wang, H., Li, Y., **Dang, L. M.**, Lee, S., & Moon, H. (2021). Pixel-level tunnel crack segmentation using a weakly supervised annotation approach. *Computers in Industry*, 133, 103545 [IF: 11.245, Q1].
- 23 Wang, H., Li, Y., **Dang, L. M.**, & Moon, H. (2021). Robust korean license plate recognition based on deep neural networks. *Sensors*, 21, 12 [IF: 3.847, Q2].
- 24 **Dang, L. M.**, Lee, S., Min, K., & Moon, H. (2020). Tampered and computer-generated face images identification based on deep learning. *Applied Sciences*, 10(2), 505 [IF: 2.838, Q2].
- 25 **Dang, L. M.**, Min, K., Wang, H., Piran, M. J., Lee, C. H., & Moon, H. (2020). Sensor-based and vision-based human activity recognition: a comprehensive survey. *Pattern Recognition*, 108, 107561 [IF: 8.518, Q1].
- 26 **Dang, L. M.**, Syed, I. H., Suhyeon, I., Sangaiah, A., Mehmood, I., Rho, S., … Moon, H. (2020). Uav based wilt detection system via convolutional neural networks. *Sustainable Computing: Informatics and Systems*, 100250 [IF: 4.923, Q1].

- 27 **Dang, L. M.**, Wang, H., Li, Y., Min, K., Kwak, J. T., Lee, O., ... Moon, H. (2020). Fusarium wilt of radish detection using rgb and near infrared images from unmanned aerial vehicles. *Remote Sensing*, 12(17), 2863 [IF: 5.349, Q1].
- 28 Li, Y., Wang, H., **Dang, L. M.**, Sadeghi-Niaraki, A., & Moon, H. (2020a). A deep learning-based hybrid framework for object detection and recognition in autonomous driving. *IEEE Access*, 8, 194228–194239 [IF: 3.476, Q2].
- 29 Li, Y., Wang, H., **Dang, L. M.**, Sadeghi-Niaraki, A., & Moon, H. (2020b). Crop pest recognition in natural scenes using convolutional neural networks. *Computers and Electronics in Agriculture*, 169, 105174 [IF: 6.757, Q1].
- 30 Wang, H., Li, Y., **Dang, L. M.**, Ko, J., Han, D., & Moon, H. (2020). Smartphone-based bulky waste classification using convolutional neural networks. *Multimedia Tools and Applications*, 79(39), 29411–29431 [IF: 2.577, Q2].
- 31 **Dang, L. M.**, Hassan, S. I., Im, S., & Moon, H. (2019). Face image manipulation detection based on a convolutional neural network. *Expert Systems with Applications*, 129, 156–168 [IF: 8.665, Q1].
- 32 **Dang, L. M.**, Piran, M., Han, D., Min, K., & Moon, H. (2019). A survey on internet of things and cloud computing for healthcare. *Electronics*, 8(7), 768 [IF: 2.690, Q2].
- 33 Hassan, S. I., **Dang, L. M.**, Mehmood, I., Im, S., Choi, C., Kang, J., ... Moon, H. (2019). Underground sewer pipe condition assessment based on convolutional neural networks. *Automation in Construction*, 106, 102849 [IF: 10.517, Q1].
- 34 **Dang, L. M.**, Hassan, S. I., Im, S., Mehmood, I., & Moon, H. (2018). Utilizing text recognition for the defects extraction in sewers cctv inspection videos. *Computers in Industry*, 99, 96–109 [IF: 11.245, Q1].
- 35 **Dang, L. M.**, Hassan, S., Im, S., Lee, J., Lee, S., & Moon, H. (2018). Deep learning based computer generated face identification using convolutional neural network. *Applied Sciences*, 8(12), 2610 [IF: 2.838, Q2].
- 36 **Dang, L. M.**, Sadeghi-niarak, A., Huy, D. H., & Moon, H. (2018). Deep learning approach for short-term stock trends prediction based on two-stream gated recurrent unit network. *IEEE Access*, 6, 55392–55404 [IF: 3.476, Q2].
- 37 Ha, J. G., Moon, H., Kwak, J. T., Hassan, S. I., **Dang, L. M.**, Lee, O. N., & Park, H. Y. (2017). Deep convolutional neural network for classifying fusarium wilt of radish from unmanned aerial vehicles. *Journal of Applied Remote Sensing*, 11(4), 042621 [IF: 1.360, Q4].

Miscellaneous

Award and achievement

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| 2017-2021 | <ul style="list-style-type: none"> ■ Full PhD scholarship, Sejong University, Seoul, Korea. |
| 2011-2016 | <ul style="list-style-type: none"> ■ Undergraduate scholarship, University of Information Technology, Vietnam. |
| 2015 | <ul style="list-style-type: none"> ■ Silver medal on “Design - Manufacture – Application III” contest with the project “Digital image copyright protection” by HoChiMinh Communist Youth Union. |
| 2013-2014 | <ul style="list-style-type: none"> ■ Student of 5 merits, University of Information Technology, Vietnam. |
| 2013 | <ul style="list-style-type: none"> ■ Vu A Dinh scholarship, for ethnic students who have a good national learning achievement, HoChiMinh city, Vietnam. |

Miscellaneous (continued)

Certification

- 2016 **📌 Hard-working and excellent study in undergraduate study**, University of Information Technology, Vietnam.
- 2019 **📌 Korea Immigration & Integration Program**, Ministry of Justice, Korea.