

林威

邮箱: linwei9612@outlook.com

网站: <https://linwei0763.github.io/>

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工作

- 博士研究生, 同济大学, 03/2021 – Present
- 实验演示员, 剑桥大学, 10/2023 – 03/2024
- 访问博士研究生, 剑桥大学, 04/2023 – 03/2024
- 研究实习生, 浙江省交通运输科学研究院, 08/2022
- 管理助理员, 同济大学, 09/2019 – 02/2021
- 工程实习生, 上海隧道工程有限公司, 07/2018 – 08/2018

教育

- 同济大学, 工学博士研究生, 03/2021 – Present
- 剑桥大学, 工学博士研究生, 04/2023 – 03/2024
- 同济大学, 工学硕士研究生, 09/2019 – 02/2021
- 同济大学, 工学学士, 09/2015 – 07/2019
- 福建省莆田第一中学, 09/2012 – 07/2015

荣誉奖励

- GeoShanghai Prize for Service Award, 05/2024
- 国家留学基金委奖学金, 07/2022
- 工程建设科学技术进步奖, 二等奖, 12/2021
- “张江国信安杯” BIM 建模大赛, 三等奖, 09/2021
- 上海市优秀毕业生, 05/2019
- 国家奖学金, 11/2017
- 全国周培源大学生力学竞赛, 二等奖, 06/2017
- 福陆奖学金, 12/2016
- 许阿琼奖学金, 08/2015

出版物

期刊论文

1. Lin, W., Sheil, B., Zhang, P., Zhou, B., Wang, C., & Xie, X. (2024). Seg2Tunnel: A hierarchical point cloud dataset and benchmarks for segmentation of segmental tunnel linings. *Tunnelling and Underground Space Technology*, 147, 105735. <https://doi.org/10.1016/j.tust.2024.105735>. (中科院 Q1, 中科院 TOP, JCR Q1, IF 6.7, 谷歌学术引用 2)
2. Li, K., Xie, X., Zhou, B., Huang, C., Lin, W., Zhou, Y., & Wang, C. (2024). Thickness regression for backfill grouting of shield tunnels based on GPR data and CatBoost & BO-TPE: A full-scale model test study. *Underground Space*, 17, 100–119. <https://doi.org/10.1016/j.undsp.2023.10.003>. (中科院 Q1, JCR Q1, IF 8.2, 谷歌学术引用 0)
3. Lin, W., Li, P., Xie, X., Cao, Y., & Zhang, Y. (2023). A novel back-analysis

approach for the external loads on shield tunnel lining in service based on monitored deformation. *Structural Control and Health Monitoring*, 2023, 8128701. <https://doi.org/10.1155/2023/8128701>. (中科院 Q2, JCR Q1, IF 4.6, 谷歌学术引用 6)

4. Lin, W., Li, P., & Xie, X. (2022). A novel detection and assessment method for operational defects of pipe jacking tunnel based on 3D longitudinal deformation curve: A case study. *Sensors*, 22, 7648. <https://doi.org/10.3390/s22197648>. (中科院 Q2, JCR Q2, IF 3.4, 谷歌学术引用 9)
5. 邹成路, 林威, 罗文静, 周彪, & 谢雄耀. (2022). 城市轨道交通车站半成岩深基坑围护结构变形特性研究. *城市轨道交通研究*, 25(3), 150–155. <https://doi.org/10.16037/j.1007-869x.2022.03.032>. (北大核心)
6. 谢雄耀, 林威, 周彪, & 邹成路. (2022). 半成岩超深基坑围护结构变形与受力特性研究. *结构工程师*, 38(1), 164–172. <https://doi.org/10.15935/j.cnki.jggcs.2022.01.019>.
7. 梁小波, 林威, 徐金峰, 刘志义, & 赵刚. (2022). 滇中红层软岩填料高路堤稳定性分析. *建筑施工*, 44(9), 2248–2251. <https://doi.org/10.14144/j.cnki.jzsg.2022.09.068>.

会议论文

1. Lin, W., Sheil, B., Xie, X., Zhang, Y., & Cao, Y. (2024). Semantic segmentation of large-scale segmental lining point clouds using 3D deep learning. *GeoShanghai International Conference 2024*, 012026. <https://doi.org/10.1088/1755-1315/1337/1/012026>.
2. Lin, W., Sheil, B., Xie, X., Li, K., & Niu, G. (2024). Segment segmentation of tunnel ring point clouds using 3D deep learning. *World Tunnel Congress 2024*, 3059–3066. <https://doi.org/10.1201/9781003495505-406>.
3. Lin, W., Xie, X., Zhou, B., Li, P., & Wang, C. (2023). Refined perception and management of ring-wise deformation information for shield tunnels based on point cloud deep learning and BIM. *Eighth International Symposium on Life-Cycle Civil Engineering (IALCCE 2023)*, 3991–3998. <https://doi.org/10.1201/9781003323020-490>.
4. Lin, W., Xie, X., Li, P., Xiao, B., Lu, X., Feng, B., Jin, P., & Hu, Y. (2022). Prediction of settlement induced by tidal fluctuation for underwater shield tunnel during service based on historical monitoring data. *2022 8th International Conference on Hydraulic and Civil Engineering: Deep Space Intelligent Development and Utilization Forum (ICHCE)*, 1042–1047. <https://doi.org/10.1109/ICHCE57331.2022.10042697>.

专利

1. 周应新, 谢雄耀, 周彪, 林威, 张洋宾, 陈思晗, 徐泓睿, 钱正富, 曾维成, 杨俊宏, 唐能, 刘志义, 史明梅, 唐忠林, 胡兴云, 赵刚, & 叶朋果. (2022). 一种用于差异沉降控制的路堤水载预压反馈调节系统. (发明, 公开)
2. 鲁正, 常佳奇, 林威, & 宰秋锐. (2018). 可变阻尼铅芯橡胶阻尼器. (发明, 授权)
3. 鲁正, 林威, 常佳奇, & 宰秋锐. (2018). 装配式建筑墙梁节点. (实用新型, 授权)

4. 鲁正, 宰秋锐, 常佳奇, & 林威. (2018). 钢结构装配式建筑墙板节点. (实用新型, 授权)

软件

1. 浙江省交通运输科学研究院. (2022). 山岭隧道横向变形点云处理系统 1.0.

学术活动

汇报

1. Semantic segmentation of large-scale segmental lining point clouds using 3D deep learning, GeoShanghai International Conference 2024, Shanghai, 27/05/2024
2. Computer vision for the segmentation of tunnel point clouds: Dataset and network, World Tunnel Congress 2024, Shenzhen, 24/04/2024
3. Understanding tunnel point clouds using 3D deep learning, Norwegian Geotechnical Institute, online, 01/11/2023
4. Refined perception and management of ring-wise deformation for segmental linings using 3D deep learning and BIM, Eighth International Symposium on Life-Cycle Civil Engineering (IALCCE 2023), Milan, 04/07/2023
5. The digital twin of shield tunnels for structural analysis, hyperTunnel, online, 05/05/2023
6. The digital twin of shield tunnels for structural analysis, Mott MacDonald, online, 27/04/2023
7. 用于大规模盾构隧道点云自动处理的计算机视觉技术, Shanghai Urban Construction Design and Research Institute (SUCDRI), Shanghai, 22/07/2024

海报

1. Revealing high-fidelity and present-day geometry of segmental linings by AI, 11th International Symposium of Geotechnical Aspects of Underground Construction in Soft Ground (IS-Macau 2024), Macau, 14–17/06/2024
2. Prediction of settlement induced by tidal fluctuation for underwater shield tunnel during service based on historical monitoring data, 2022 8th International Conference on Hydraulic and Civil Engineering: Deep Space Intelligent Development and Utilization Forum (ICHCE), Xi'an, 25–27/11/2022

评审

1. Tunnelling and Underground Space Technology, 2 reviews
2. Underground Space, 4 reviews

研究课题

负责人

1. 国家留学基金委 [202206260174], 04/2023 – 03/2024
2. 上海市教育委员会 [201710247118], 01/2017 – 01/2018

参与人

1. 中华人民共和国科学技术部 [2023YFC3806705]
2. 中华人民共和国科学技术部 [2023YFC3806702]
3. 中华人民共和国科学技术部 [2023YFC3806701]
4. 中华人民共和国科学技术部 [2019YFC0605103]
5. 中华人民共和国科学技术部 [2019YFC0605100]

6. 国家自然科学基金委员会 [52378408]
7. 国家自然科学基金委员会 [52038008]
8. 国家自然科学基金委员会 [51978431]
9. 上海市科学技术委员会 [22DZ1203004]
10. 上海市科学技术委员会 [20DZ1202004]
11. 上海市科学技术委员会 [2017SHZDZX02]
12. 云南省交通运输厅 [2021-7]
13. 国网上海市电力公司 [52090W23000B]
14. 国网上海市电力公司 [52090W220001]
15. 广州地铁设计研究院股份有限公司 [KY-B-2016-018]