

FANYOU WU

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ACADEMIC EMPLOYMENT

Department of Forestry and Natural Resources, Purdue University Jan 2022 - Current
Postdoc Research Assistant
Develop a forest measurement App to estimate tree diameter, height, species and more.
Develop algorithm to estimate tree growth ring edges.

EDUCATION

Purdue University Jan 2018 - Dec 2021
Ph.D in Forestry

University of Eastern Finland Sep 2015 - Apr 2017
M.S. in Wood Material

Nanjing Forestry University Sep 2011 - Jun 2015
B.E in Wood Material

University of British Columbia Aug 2013 - May 2014
Exchange student in Wood Products Processing

SELECTED PUBLICATIONS

🌲 Forestry | 🇪🇺 Transportation | 📝 Co-first Author |

1	2
3	4

 JCR Quartile Ranking | 📖 Under Review

Liu, Y., 📝 **Wu, F.**, Lyu, C., Liu, X., Liu, Z., Ye, J. & Qu, X. (2022). 🇪🇺 Deep Dispatching: A Deep Reinforcement Learning Approach for Vehicle Dispatching on Online Ride-hailing Platform.

1

 Transportation Research Part E: Logistics and Transportation Review. 📖

Liu, Y., Wang, K., **Wu, F.**, Liu, Z., & Qu, X. (2022). 🇪🇺 Representation, Learning and Inference for Real-world Delivery Route Optimization.

1

 Transportation Science. 📖

Wu, F., Gazo, R., Benes, B., & Haviarova, E. (2021). 🌲 Deep BarkID - A Portable Tree Bark Identification System by Knowledge Distillation.

1

 European Journal of Forest Research. [\[link\]](#)

Wu, F., Gazo, R., Haviarova, E., & Benes, B. (2021). 🌲 Wood identification based on longitudinal section images by using deep learning.

1

 Wood Science and Technology, 55(2), 553-563. [\[link\]](#)

Liu, Y., 📝 **Wu, F.**, Lyu, C., Liu, X., & Liu, Z. (2021). 🇪🇺 Behavior2vector: Embedding Users' Personalized Travel Behavior to Vector.

1

 IEEE Transactions on Intelligent Transportation Systems. [\[link\]](#)

Wu, F., Gazo, R., Haviarova, E., & Benes, B. (2019). Efficient Project Gradient Descent for Ensemble Adversarial Attack. IJCAJ workshop. [\[link\]](#)

Wu, F., & Kärenlampi, P.P. (2017). Phase Transition in A Growing Network. Journal of Complex Networks. [\[link\]](#)

COMPETITIONS WITH CASH PRIZE

CVRP 2021 The 2nd Agriculture-Vision Prize Challenge <i>2nd, 3000+1200 USD</i> Develop models for farmland prediction based on image segmentation models.	2021 [link]
NeurIPS 2020 Traffic4cast Competition <i>2nd, 5000 USD</i> Develop models for traffic map movies prediction based on image segmentation models.	2020 [link]
KDD CUP 2020 Reinforcement Learning Competition Track <i>1st in Reposition Track, 8000 USD</i> Develop vehicle repositioning models based on Deep-Q learning.	2020 [link]
IJCAI-19 Alibaba Adversarial AI Challenge-Competition <i>1st in Trajet Attack Track, 5000 USD</i> Develop adversarial attack methods based on a modification of Projection Gradients Descents.	2019 [link]
KDD CUP 2019 Regular Machine Learning Competition Track <i>4th, 1000 USD</i> Develop transportation recommendation models based on tree ensemble and node embedding.	2019 [link]
Other Competitions <i>In total, more than 30000 USD</i> Develop competitions solution mainly based on classic data mining models.	2017 – 2018 [link]

TEACHING EXPERIENCE

FNR 210: Natural Resource Information Management <i>Teaching Assistant</i> Introduction to analysis and management of natural resources data with special emphasis on geographic information systems (GIS) and applications in ArcGIS Pro.	Jan 2021 - Apr 2021
FNR 311 - Structure, Identification And Properties Of Woody Biomaterials <i>Teaching Assistant</i> An outline and the identification of macro characteristics of commercially important woody biomaterials (color, odor, cellular arrangement, grain patterns, character marks, etc.) through laboratory exercises and field trips.	Jan 2019 - Apr 2019

INTERNSHIP

Envision Digital <i>Machine Learning Engineer</i> Develop machine learning solution for better predicting user demand of electricity.	Aug 2017 - Dec 2017
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