

Dr. Di Weng

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EXPERIENCE

Microsoft Research Asia, Beijing, China

- Researcher at Data, Knowledge, and Intelligence (DKI) Group Jan 2022 – Present
 - Research Interest: *Information Visualization, Human-Computer Interaction, Visual Analytics*

EDUCATION

Zhejiang University, Hangzhou, China

- Ph.D. in Computer Science Sep 2016 – Dec 2021
 - Advised by Prof. Yingcai Wu at State Key Lab of CAD&CG
 - Research Interest: *Spatio-temporal (Urban) Data Visual Analytics*

Shandong University, Shandong China

- B.Eng. in Computer Science, Taishan Honors College Sep 2012 – Jun 2016

INTERNSHIPS

Alibaba-Zhejiang University Joint Institute of Frontier Technologies, Hangzhou, China

- Research Intern Jun 2021 – Dec 2021
 - Supervisor: Prof. Yingcai Wu

Zhejiang Lab, Hangzhou, China

- Research Intern, Research Center for Integrated Intelligence May 2020 – Dec 2020
 - Supervisors: Prof. Yingcai Wu and Prof. Wei Chen

Monash University, Melbourne, Australia

- Visiting Research Student, Immersive Analytics Lab Jul 2019 – Jan 2020
 - Supervisors: Prof. Tim Dwyer and Prof. Kim Marriott
 - Supported by China Scholarship Council

JD Finance, Beijing, China

- Research Intern, Urban Computing Business Unit Apr 2018 – Sep 2018
 - Supervisors: Dr. Yu Zheng and Dr. Jie Bao

PUBLICATIONS

IEEE Transactions on Visualization and Computer Graphics (8)

- J. Tang, Y. Zhou, T. Tang, D. Weng, B. Xie, L. Yu, H. Zhang, Y. Wu. **A Visualization Approach for Monitoring Order Processing in E-Commerce Warehouse**. IEEE Trans. Vis. Comput. Graph. 28(1): 857-867 (2022). Also appears in IEEE VIS 2021.
- Z. Deng, D. Weng, X. Xie, J. Bao, Y. Zheng, M. Xu, W. Chen, Y. Wu. **Compass: Towards Better Causal Analysis of Urban Time Series**. IEEE Trans. Vis. Comput. Graph. 28(1): 1051-1061 (2022). Also appears in IEEE VIS 2021.
- R. Chen, X. Shu, J. Chen, D. Weng, J. Tang, S. Fu, Y. Wu. **Nebula: A Coordinating Grammar of Graphics**. To appear in IEEE Trans. Vis. Comput. Graph.
- Z. Deng, D. Weng, Y. Liang, J. Bao, Y. Zheng, T. Schreck, M. Xu, Y. Wu. **Visual Cascade Analytics of Large-scale Spatiotemporal Data**. To appear in IEEE Trans. Vis. Comput. Graph.
- D. Weng, C. Zheng, Z. Deng, M. Ma, J. Bao, Y. Zheng, M. Xu, Y. Wu. **Towards Better Bus Networks: A Visual Analytics Approach**. IEEE Trans. Vis. Comput. Graph. 27(2): 817-827 (2021). Also appears in IEEE VIS 2020.
- Z. Deng, D. Weng, J. Chen, R. Liu, Z. Wang, J. Bao, Y. Zheng, Y. Wu. **AirVis: Visual Analytics of Air Pollution Propagation**. IEEE Trans. Vis. Comput. Graph. 26(1): 800-810 (2020). Also appears in IEEE VIS 2019.
- D. Weng, R. Chen, Z. Deng, F. Wu, J. Chen, Y. Wu. **SRVis: Towards Better Spatial Integration in Ranking Visualization**. IEEE Trans. Vis. Comput. Graph. 25(1): 459-469 (2019). Also appears in IEEE VIS 2018.

- D. Liu, D. Weng, Y. Li, J. Bao, Y. Zheng, H. Qu, Y. Wu. **SmartAdP: Visual Analytics of Large-scale Taxi Trajectories for Selecting Billboard Locations**. IEEE Trans. Vis. Comput. Graph. 23(1): 1-10 (2017). Also appears in IEEE VIS 2016.

ACM CHI (1)

- D. Weng, H. Zhu, J. Bao, Y. Zheng, Y. Wu. **HomeFinder Revisited: Finding Ideal Homes with Reachability-Centric Multi-Criteria Decision Making**. CHI 2018: 247.

IEEE Transactions on Intelligent Transportation Systems (2)

- Y. Wu, D. Weng, Z. Deng, J. Bao, M. Xu, Z. Wang, Y. Zheng, Z. Ding, W. Chen. **Towards Better Detection and Analysis of Massive Spatiotemporal Co-Occurrence Patterns**. IEEE Trans. Intell. Transp. Syst. 22(6): 3387-3402 (2021).
- D. Weng, R. Chen, J. Zhang, J. Bao, Y. Zheng, Y. Wu. **Pareto-Optimal Transit Route Planning With Multi-Objective Monte-Carlo Tree Search**. IEEE Trans. Intell. Transp. Syst. 22(2): 1185-1195 (2021).

AWARDS & SCHOLARSHIPS

- National Scholarship 2020
- He Zhijun Scholarship - Special Award 2020
- National Scholarship 2019
- China Scholarship Council Ph.D. Scholarship 2019
- Luzengyong CAD&CG High Technology Award, Third Prize 2019
- Wenchixiang Ph.D. Scholarship 2018
- MSRA Fellowship Nomination Award 2018
- ACM-ICPC Beijing Invitational Contest, Bronze 2014
- ACM-ICPC Shandong Provincial Contest, Silver 2014

SERVICES

- Reviewer, CHI 2021
- Reviewer, ChinaVis 2019 & 2021
- Reviewer, International Conference on Image and Graphics 2021

PRESENTATIONS

- **Towards Better Bus Networks: A Visual Analytics Approach** 2020
IEEE VIS 2020, Online
- **SRVis: Towards Better Ranking Integration in Ranking Visualization** 2018
TVCG Session on Data Visualization, SIGGRAPH Asia 2018, Tokyo, Japan
- **SRVis: Towards Better Ranking Integration in Ranking Visualization** 2018
IEEE VIS 2018, Phoneix, U.S.
- **HomeFinder Revisited Finding Ideal Homes with Reachability-Centric Multi-Criteria Decision Making** 2018
ACM CHI 2018, Montreal, Canada
- **Best Practices and Case Studies on Full-Stack VA System Development** 2017
Zhejiang University International Summer School on Visual Analytics, Hangzhou, China
- **Location Selection of Billboards Based on Large-Scale Taxi Trajectories** 2016
ChinaVis 2016, Changsha, China
- **Visual Analytics of Large-Scale Urban Data** 2016
China R Conference and Southern China Data Science Conference, Guangzhou, China
- **Developing Visual Analytics Systems with MEAN.js Framework** 2016
Zhejiang University International Summer School on Visual Analytics, Hangzhou, China

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