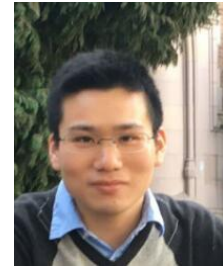


## Xinqiang Chen

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- Shanghai Maritime University
- #1550 Haigang Ave., Shanghai, P.R. China
- chenxinqiang@stu.shmtu.edu.cn



## Education Background & Work

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- 2018.7- Now Shanghai Maritime University *Institute of logistics science & engineering* **Assistant Professor**
- 2013.9-2018.6 Shanghai Maritime University *Traffic Information Engineering* Ph.D.
- **2015.9-2016.9 University of Washington Traffic Engineering Visiting Ph.D.**
- 2010.9-2012.7 Shanghai Maritime University *Traffic Information Engineering* Master
- 2005.9-2010.7 Jiangxi University of Science and Technology *Traffic Engineering* Bachelor

## Research Interests

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- Intelligent maritime video understanding
- UAV video analysis
- Intelligent Transportation Systems
- Transportation data analysis

## Selected Publications (\* represents the corresponding author)

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- **Xinqiang Chen**, Shengzheng Wang, Chaojian Shi, Huafeng Wu, Jiansen Zhao, and Junjie Fu. "*Robust ship tracking via multi-view learning and sparse representation*", Journal of Navigation, vol. 72, no. 1 (2019): 176-192. **(SCI, Q2)**.
  - **Xinqiang Chen**, Zhibin Li, Yinhai Wang, Jinjun Tang, Wenbo Zhu, Chaojian Shi, and Huafeng Wu. "*Anomaly Detection and Cleaning of Highway Elevation Data from Google Earth Using Ensemble Empirical Mode Decomposition*", Journal of Transportation Engineering, Part A: Systems, vol. 144, no. 5 (2018): 04018015. **(SCI, Q3)**.
  - **Xinqiang Chen**, Zhibin Li, Yinhai Wang, Zhiyong Cui, Chaojian Shi, and Huafeng Wu. "*Evaluating the impacts of grades on vehicular speeds on interstate highways*", PloS one, vol. 12, no. 9 (2017): e0184142. **(SCI, Q1)**.
  - **Xinqiang Chen**, Yongsheng Yang, Shengzheng Wang, Huafeng Wu, Jinjun Tang, Jiansen Zhao, and Zhihuan Wang. "*Ship Type Recognition via a Coarse-to-Fine Cascaded Convolution Neural Network*", Journal of Navigation, **(SCI, Q2, In press)**.
  - **Xinqiang Chen**, Lei Qi, Yongsheng Yang, Qiang Luo, Octavian Postolache, Jinjun Tang, Huafeng Wu. "*Video-based Detection Infrastructure Enhancement for Automated Ship Recognition and Behavior Analysis*", Journal of Advanced Transportation, **(SCI, Q1, In press)**.
  - Qiang Luo, Jie Yuan, **Xinqiang Chen\***, Shubo Wu, Zhijian Qu, and Jinjun Tang\*.
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"Analyzing start-up time headway distribution characteristics at signalized intersections", *Physica A: Statistical Mechanics and its Applications* (2019): 122348. (SCI, Q1).

- Qu, Zhijian, Xubing Sun, **Xinqiang Chen\***, and Shengao Yuan. "A novel RFID multi-tag anti-collision protocol for dynamic vehicle identification" *PloS one*, vol. 14, no. 7 (2019): e0219344. (SCI, Q1).
  - Qiang Luo, Jie Yuan\*, **Xinqiang Chen\***, Junheng Yang, Wenhui Zhang and Jiansen Zhao. "Research on mixed user equilibrium model based on mobile internet traffic information service" *IEEE ACCESS*, (SCI, Q1, In press).
  - Jinjun Tang, Jin Hu, Wei Hao, **Xinqiang Chen\*** and **Yong Qi\***. Markov Chains based route travel time estimation considering link spatio-temporal correlation. *Physica A: Statistical Mechanics and its Applications* (SCI, In Press).
  - **Xinqiang Chen**, Zhibin Li, Yinhai Wang, Chaojian Shi, Huafeng Wu, and Shengzheng Wang. "Highway elevation data smoothing using local enhancement mechanism and butterworth filter" *International journal of innovative computing information and control*, vo. 13, no. 6 (2017): 1887-1901. (EI).
  - Jinjunn Tang, **Xinqiang Chen**, Zheng Hu, Fang Zong, Chunyang Han, and Leixiao Li. "Traffic flow prediction based on combination of support vector machine and data denoising schemes" *Physica a-statistical mechanics and its applications*, (SCI, In press, Q1).
  - Jiansen Zhao, **Xinqiang Chen**, Shengzheng Wang, Wei Liu, Baoxian Ji, Yue Liu, Zhen Sun, and Tie Xu. "A Study of the Characteristics of a Deformable Antenna Based on Gas Discharge" *IEEE Transactions on Antennas and Propagation*, vol. 66, no. 1 (2017): 59-70. (SCI, Q1).
  - Jinjun Tang, Shaowei Yu, Fang Liu, **Xinqiang Chen**, Helai Huang. "A hierarchical prediction model for lane-changes based on combination of fuzzy C-means and adaptive neural network" *Expert Systems With Applications*, 130 (2019), 265-275.
  - Jinjun Zhao, Shen Zhang, **Xinqiang Chen**, Fang Liu, and Yajie Zou. "Taxi trips distribution modeling based on Entropy-Maximizing theory: A case study in Harbin city—China" *Physica A: Statistical Mechanics and its Applications*, vol. 493 (2018): 430-443. (SCI, Q1).
  - Huafeng Wu, Xiaojun Mei, **Xinqiang Chen**, Junjun Li, Jun Wang, and Prasant Mohapatra. "A novel cooperative localization algorithm using enhanced particle filter technique in maritime search and rescue wireless sensor network" *ISA transactions*, vol. 78 (2018): 39-46. (SCI, Q1).
  - Jinjun Tang, Shaowei Yu, Fang Liu, **Xinqiang Chen**, and Helai Huang. "A hierarchical prediction model for lane-changes based on combination of fuzzy C-means and adaptive neural network" *Expert Systems with Applications*, vol. 130 (2019): 265-275. (SCI, Q1).
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- Wenhui Zhang, Yongmin Su, Ruimin Ke, and **Xinqiang Chen**. "*Evaluating the influential priority of the factors on insurance loss of public transit*" PloS one, vol. 13, no. 1 (2018): e0190103. (**SCI, Q1**).
- Jiansen Zhao, Shengzheng Wang, Huafeng Wu, Yue Liu, Yongmeng Chang, and **Xinqiang Chen**. "*Flexible plasma linear antenna*" Applied Physics Letters, vol. 110, no. 9 (2017): 094108. (**SCI, Q1**).
- **Xinqiang Chen**, Yongsheng Yang, Huafeng Wu, Ruimin Ke. "*Detecting Ships from Coastal Surveillance Videos with a Canny-Gaussian Morphology Framework*" Accepted by the 99th Annual Meeting of Transportation Research Board, **Oral Presentation**.
- **Xinqiang Chen**, Zhibin Li, Yongsheng Yang, Huafeng Wu, Ruimin Ke, and Wenzhu Zhou. "*Extracting and Denoising Vehicle Trajectory Automatically from Aerial Roadway Surveillance Videos*" The 98th Annual Meeting of Transportation Research Board, No. 19-03147, 2019, (**Poster Presentation**).
- Zhibin Li, **Xinqiang Chen\***, Lei Ling, Huafeng Wu, Wenzhu Zhou, and Cong Qi. "*Accurate Traffic Parameter Extraction from Aerial Videos with Multi-Dimensional Camera Movements*" The 98th Annual Meeting of Transportation Research Board, No. 19-02817, 2019, (**Poster Presentation**).
- **Xinqiang Chen**, Chaojian Shi, Shengzheng Wang, Huafeng Wu, Zhibin Li, and Jibiao Zhou. "*Recognizing typical merchant ship categories based on a deep network*" The 97th Annual Meeting of Transportation Research Board, No. 18-02544. 2018, (**Poster Presentation**).
- **Xinqiang Chen**, Chaojian Shi, Shengzheng Wang, Huafeng Wu, Jiansen Zhao, and Zhibin Li. "*Automatic tracking of ships based on maritime surveillance videos*" The 97th Annual Meeting of Transportation Research Board, No. 18-02553. 2018, (**Poster Presentation**).

### **Paper in review (\* represents the corresponding author)**

- 
- **Xinqiang Chen**, Zhibin Li, Yongsheng Yang, Ruimin Ke. "*Microscopic Traffic Parameter Extraction from Aerial Videos with Multi-Dimensional Camera Movements*" Transportation Research Part C: Emerging Technologies, (**SCI, under review, Q1**).
  - **Xinqiang Chen**, Zhibin Li, Lei Qi, Yongsheng Yang. "*A Novel Framework for Vehicle Trajectory Extraction and Denoising from Aerial Videos*" IEEE Transactions on Intelligent Transportation Systems, (**SCI, under review, Q1**).
  - **Xinqiang Chen**, Huixing Chen, Yongsheng Yang, Huafeng Wu, Jun Ling, Jiansen Zhao, and Zehong Cao. "*Ship Detection under inshore waters via Canny filter and Gaussian-Morphology method*" International Journal of Distributed Sensor Networks,
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(SCI, under review, Q2).

- **Xinqiang Chen**, Xueqian Xu, Yongsheng Yang, Huafeng Wu, Jinjun Tang and Jiansen Zhao. "*Augmented Ship Tracking under Occlusion Conditions for Autonomous Shipping*" IEEE ACCESS, (SCI, under review, Q1).
- Junjie Fu, **Xinqiang Chen\***, Shubo Wu, Chaojian Shi, Huafeng Wu, Jiansen Zhao, and Pengwen Xiong. "*Mining Ship Deficiency Correlations from Historical Port State Control (PSC) Inspection Data*" PloS one, (SCI, under review, Q1).

## Participated Projects

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- Highway Grade Characterization and Operating Efficiency Methods, Tools and Data Development (**Sponsored by Federal Highway Administration**).
- Drive net phase II: Online moving Washington platform for network-wide system operations, monitoring and analysis (**Sponsored by Washington State Department of transportation**).
- Regional Map Based Analytical Platform for State-Wide Highway Safety Performance Assessment (**Sponsored by Regional Transportation Center for Federal Region 10**).
- The three-dimensional dynamic cooperative localization mechanism of ocean sensor network based on the ocean wave shielding effect model (**Sponsored by National Natural Science Foundation of China**).
- Dynamic topology and spatial-temporal stochastic coverage mechanism of maritime search and rescue wireless sensor networks (**Sponsored by National Natural Science Foundation of China**).
- Maritime target detection via GNSS-R and heterogeneous sensor information fusion method for maritime surveillance (**Sponsored by National Natural Science Foundation of China**).
- Energy-friendly route design based on big data and machine learning (**Sponsored by Shanghai Municipal Education Commission**).
- Study on the mechanism of dynamic topology and temporal and spatial random coverage of wireless sensor network in maritime search and rescue (**Sponsored by Shanghai Municipal Education Commission**).

## Academic Service/Honors/Memberships

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- **Outstanding Reviewer of Journal of King Saud University-Computer and Information Sciences (ESCI)**
- **Academic Committee Member of World Transport Convention 2018 (WTC 2018)**
- **Member of Technical Program Committee of International Conference on Data Science and Business Analytics (ICDSBA 2018)**
- **Member of Technical Program Committee of International Conference on Sensing and Instrumentation in IoT Era (ISSI 2018)**

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- **Member of Technical Program Committee of 2018 the third International Conference on Electrical, Control and Automation Engineering (ECAE2018)**
  - **Committee Member of 2018 International Symposium on Traffic Transportation and Civil Architecture (ISTTCA 2018)**
  - **Editorial Board Member of SCIREA Journal of Computer**
  - **Editorial Board Member of SCIREA Journal of Information Science and Systems Science**
  - **Editorial Board Member of SCIREA Journal of Traffic and Transportation**
  - **Editorial Board Member of Journal of Shipping and Ocean Engineering**
  - **Editorial Board Member of International Journal of Transportation Engineering and Technology**
  - **Member of International Association of Engineers**
  - **Second-class prizes of outstanding graduate students achievements of Shanghai Maritime University**
  - **Reviewer of IEEE Transactions on Intelligent Transportation Systems (SCI)**
  - **Reviewer of Maritime Policy & Management (SCI)**
  - **Reviewer of IET Intelligent Transportation Systems (SCI)**
  - **Reviewer of Journal of Transportation Engineering, Part A: Systems (SCI)**
  - **Reviewer of The Journal of Navigation (SCI)**
  - **Reviewer of PLoS ONE (SCI)**
  - **Reviewer of Physica A: Statistical Mechanics and Its Applications (SCI)**
  - **Reviewer of IEEE ACCESS (SCI)**
  - **Reviewer of Journal of Advanced Transportation (SCI)**
  - **Reviewer of Sustainability (SCI)**
  - **Reviewer of Sensors (SCI)**
  - **Reviewer of IEEE Sensors Journal (SCI)**
  - **Reviewer of Entropy (SCI)**
  - **Reviewer of International Journal of Information Technology and Web Engineering (EI)**
  - **Reviewer of Journal of King Saud University - Computer and Information Science (ESCI)**
  - **Reviewer of Smart Cities**
  - **Reviewer of Journal of Marine Science & Engineering**
  - **Reviewer of TRB (ABJ50 committee)**
  - **Reviewer of TRB (ADB20 committee)**
  - **Reviewer of TRB (ABJ70 committee)**
  - **Reviewer of the COTA International Conference of Transportation Professionals (CICTP 2017, CICTP 2018, CICTP 2019, CICTP 2020)**
  - **Reviewer of International Conference on Physics, Mathematics and Statistics (ICPMS 2018)**
  - **Reviewer of the World Transport Convention (WTC 2018, WTC 2019)**

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- **Reviewer of International Conference on Data Science and Business Analytics (ICDSBA 2018)**
  - **Reviewer of International Conference on Sensing and Instrumentation in IoT Era (ISSI 2018, ISSI 2019)**
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