Chenxing Wang

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Education

Beijing University of Posts and Telecommunications — Beijing, China
M.S. in Software Engineering, Deep Learning & ITS — 2019–Current (Intended grad: 2022)

Northeaset Petroleum University — Heilongjiang, China
B.S. in Sofware Engineering, GPA: 4.76/5.00, Top No.1 — 2015–2019

Publications

[1] **C. Wang**, H. Luo, F. Zhao, and Y. Qin, "Combining residual and lstm recurrent networks for transportation mode detection using multimodal sensors integrated in smartphones", *IEEE Transactions on Intelligent Transportation Systems*, pp. 1–13, 2020.

[2] Y. Qin, H. Luo, F. Zhao, **C. Wang**, J. Wang, and Y. Zhang, "Toward transportation mode recognition using deep convolutional and long short-term memory recurrent neural networks (supervisors at 2nd and 3rd)", *IEEE Access*, vol. 7, pp. 142 353–142 367, 2019.

[3] Y. Qin, **C. Wang**, and H. Luo, "Transportation recognition with the sussex-huawei locomotion challenge", in *Adjunct Proceedings of the 2019 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2019 ACM International Symposium on Wearable Computers*, ser. UbiComp/ISWC '19 Adjunct, London, United Kingdom: Association for Computing Machinery, 2019, pp. 798–802, ISBN: 9781450368698.

Experience

Institute of Computing Technology of the Chinese Academy of Sciences — Beijing, China
Beijing Key Laboratory of Mobile Computing and Pervasive Device — Jun 2018–Current

- Research on National Key Research and Development Program (Grant 2018YFB0505200)
  Responsible for research work (including data processing, model design, training and literature reviewing) on intelligent transportation system under the context awareness field using machine learning and deep learning techniques. At least 3 publications have been published with part of my contributions.
- The Dawn Supercomputer maintenance work
  Responsible for the daily maintenance work for our lab(including the management of drivers, dockers, TeamCity platform and anaconda environments etc). The stable maintenance of the supercomputer ensures the effective research work in our lab.

Lab A.N.T in Northeast Petroleum University — Heilongjiang, China
Team Lead — Jul 2017–Feb 2018

- X Learning Platform (Confidentiality agreement)
  Responsible for demand analysis and technology transferring work using C# with MVC5+EF6 framework and this project was awarded by the X ministry and is still in operation for at least 3,000 online users at same time.
- X Verification Platform (Confidentiality agreement)
  Responsible for demand analysis, database design,and the tackling of key technical problems (i.e. solving two-type identity authentications with Apache Shiro, one of which requires data from the other separate network environment) using Springboot, Vue.JS and Android related techniques. This project is still in operation with more than 2,000 users and has been under actively maintained by other teams in my former lab.

Projects

Travel Time Estimation using Meta-learning Techniques
Beijing Key Laboratory of Mobile Computing and Pervasive Device

- We utilize meta-learning techniques to construct a encoder-decoder based neural network to estimate travel time in multi-city scenarios.
- We have submitted our manuscript **(as the first author)** to *Transportation Research Part C: Emerging Technologies*.

Traffic flow prediction using spatial and temporal data
Beijing Key Laboratory of Mobile Computing and Pervasive Device

- We utilize graph neural network-based techniques to learn the feature representations for predicting travel speed in urban areas.
- We are preparing **two manuscripts** for the *IJCAI-21*.

Transportation Mode Detection based on NIN + GCN neural networks
Beijing Key Laboratory of Mobile Computing and Pervasive Device

- We utilize dilated network-in-network structure and representations in GCN to acquire the predicted label of transportation mode. This manuscript is now *Accepted after minor revisions* at IEEE T-VT.

Transportation Mode Detection based on attention-based residual LSTM networks
Beijing Key Laboratory of Mobile Computing and Pervasive Device

- We utilized attention-based residual network with LSTM to learn reasonable feature representations using multi-modal sensor data integrated in smartphones with high accuracy and scalability on transportation mode detection tasks. We have published our work **(as the first author)** at https://ieeexplore.ieee.org/document/9078348/.

Activities&Leadership

- **Teaching Assistant** at Beijing University of Posts and Telecommunications — Apr 2020 - Jun 2020
  Course Name: Intro Shell Programming in Linux
- **Teaching Assistant** at Beijing University of Posts and Telecommunications — Sep 2019 - Jan 2020
  Course Name: Operating System
- **Finerit.com, Co-Founder&Tech Lead** — Jun 2018 - Present
  Manage technical development work in Finerit.com and responsible for tackling key technical issues and making major technical decisions.
- **Director, Red ribbon department of the Red Cross** at NEPU — Oct 2016 - 2018.12
- **Director, Original department of the New Media Center** at NEPU — Oct 2016 - 2018.12

Scholarships and Awards

- China National Scholarship — 2020
- Graduate Student Scholarship - 1st Prize — 2019
- National English Competition for College Students - 2nd Prize — 2018
- National English Competition for College Students - 1st Prize — 2017
- China National Scholarship - No. 26343 — 2017
- National Students' platform for innovation and entrepreneurship training program — 2016
- School Scholarship - 1st Prize — 2015–2018