Curriculum Vitae – Hong-Bin LIU

Personal Information

Hong-Bin LIU
♂ Male
19/06/1986
Australian PR
https://hongbin.info
me@hongbin.info
+61423952572

Skills

Programming languages: Python, Objective C, Java, Swift, C#, PHP, mySQL.

Deep Learning and Data Mining: Tensorflow, PyTorch, Numpy, R, OriginPro.

Office softwares: Microsoft Office, LaTeX.

Languages: English, Chinese (Mandarin and Contonese).

Education

Ph.D in Information Systems - Artificial Intelligence — Jun. 2020 (Expected)
James Cook University (*JCU*), QLD, Australia

Supervisor: Ickjai Lee, Joanne Lee, Trina Myers
Project Summary: Looking at applying AI technologies into spatio-temporal datasets, including trajectory classification, sequence prediction etc.
Outcomes: During my Ph.D study, I have gained sufficient research skills, including literature review, experiment implementation and academic writing. I have written three high quality conference papers including ICDM (Core Rank A*) paper and ECAI (Core Rank A) and two journal papers (in review). I also built up research collaboration network, we have collaboration on one paper with Fudan university which is one of the top universities in Asia. During my Ph.D period I also won the 3rd place of the AI Challenger 2018 weather prediction competition.

Master of Computer Science — 2010 - 2012
Royal Melbourne Institute of Technology (*RMIT*), Melbourne, Australia

Publications

Hong-Bin Liu, Ickjai Lee, "Bridging the Gap Between Training and Inference for Spatio-Temporal Forecasting", ECAI 2020 Accepted (Core Rank **A**)

Hong-Bin Liu, Hao Wu, Weiwei Sun, Ickjai Lee, "Spatio-Temporal GRU for Trajectory Classification", 2019 IEEE International Conference on Data Mining (ICDM), Beijing, China, 2019, pp. 1228-1233. (Core Rank **A***)

Hong-Bin Liu, Ickjai Lee, "MPL-GAN: Towards Realistic Meteorological Predictive Learning Using Conditional GAN", IEEE Access, doi: 10.1109/ACCESS.2020.2995187.

Hong-Bin Liu, Ickjai Lee, "Irregular-sampled Trajectory Modelling with Spatio-Temporal GRU", TKDD in Review (CCF Rank B)

Hongbin Liu and Ickjai Lee, "End-to-end Trajectory Transportation Mode Classification using Bi-LSTM Recurrent Neural Network" 2017 12th International Conference on Intelligent Systems and Knowledge Engineering (ISKE), Nanjing, 2017. (Core Rank B)

Employment History

James Cook University - Casual Academic — Cairns, QLD. *2019 -*

- Tutor for MA5832 Data Mining and Machine Learning (Tutorial delivery)
- Tutor for MA5810 Introduction to Data Mining (Tutorial delivery)
- Tutor for CP5805 Python Programming (Tutorial delivery)
- Tutor for CP5804 Database Modelling (Assessment Marking)

- Tutor for MA5800 R Programming (Assessment Marking)

InspectionApps - Developer Programmer Cairns, QLD. *Dec. 2014 - Jul. 2017*

Duties:

- Develop and maintain Inspection iOS APPs and SAAS applications.
- Meet clients and gather requirement specifications
- Project management to achieve goals

Technologies:

- PHP, Objective-C, C#.net, MySQL, SQL, Javascript, AngularJS, HTML, CSS.

Logicsolutions - iOS Developer Shanghai, China. *Jan. 2013 - Dec. 2014*

Development of varieties of mobile applications including iOS and Android platforms. Develop and maintain all sort of iOS applications.

Projects:

- Showcase Sales iPad APP Jan. 2013 - Jun. 2013
- Genisys @ Credit Union iPhone APP Jun. 2013 - Sep. 2013
- Hirambo APP. Sep. 2013 - Dec 2013
- Jebsen Porsche Jan 2014 - Oct. 2014

PROJECTS

Weather Forecasting Competition https://challenger.ai/competition/wf2018

AI Challenger is one of the world leading AI/Data Mining contest platforms. Weather Forecasting is to build a model that takes historical observed data and outputs the prediction of the next 24 hours. In this competition I adopt the encoder-decoder LSTM, the encoder encodes the historical data into a feature vector and the decoder outputs the prediction step by step based on the encoded feature vector.

Bintorch https://github.com/bingo619/bintorch

This is a replication of PyTorch by pure Python and Numpy that I built, which aims to help beginners to understand how deep learning frameworks work. This project has got many attentions from Deep Learning researchers all around the world.

ReadPapers https://github.com/bingo619/ReadPapers

An awesome APP built for researchers to search and read open access publications.

Air Presentation https://itunes.apple.com/au/app/air-presentatation-ppt-remote/id1294122699

A PPT remote includes iOS APP, Apple Watch APP and Mac service. I designed and implemented all platforms including all the graphic designs.

AWARDS

Weather Forecasting Competition Won 3rd place.

Australia APA Scholarship 2017 - 2020

PUBLIC SERVICES

TIST Journal Reviewer

ECAI 2020 PC Member

SmartGIFT 2019 PC Member