JIADI BAO

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Ph.D. student in the School of Information and Electronics, Beijing Institute of Technology

RESEARCH INTERESTS

statistical signal processing, variational inference, sequential change-point detection, time series analysis

EDUCATIONAL BACKGROUND

Beijing Institute of Technology Sep 2022 – present

Ph.D. student in Signal Processing.

Beijing Institute of Technology Sep 2021 – Sep 2021

M.Sc. student in Signal Processing.

Beijing University of Technology Sep 2017 – June 2021

B.Eng. in Electrical Engineering

RESEARCH EXPERIENCE

Online Parameter Estimation and Change Point Detection for Multi-function Radar Pulse Sequence Based on the Bayesian Non-parametric HMM

Investigator Sep 2022 – present

- Based on the previous multi-function radar hierarchical model. Search the relevant literature for model representation.
- Proposed a parameter estimation and sequential change point detection framework for multi-function radar work mode sequence under non-ideal observations.
- Submitted a paper entitled “Online Parameter Estimation and Change Point Detection for Multi-function Radar Pulse Sequence Based on the Bayesian Non-parametric HMM” at IEEE transactions on signal processing. (In peer review)

Online Detection Method of Multi-Function Radar Work Mode Changepoints Non-ideal Observations

Investigator Sep 2020 – June 2021

- Searched for relevant literature for independent study and summarised the development process and current situation of change point detection and multi-function radar hierarchical model.
- Proposed a change point detection method for multi-function radar work mode sequence under unideal observations.
- Published a paper entitled “Online Detection Method of Multi-Function Radar Work Mode Changepoints Non-ideal Observations” at Acta Electronica Sinica.
- Received an outstanding paper at National Electronic Warfare Conference 2022.

Optimized Faster-RCNN in real-time facial expression classification

Leader 2018.9-2019.3

- Searched for relevant literature and summarised the development process and current situation of the faster-RCNN deep network.
- Optimized the network in order to reduce the computational redundancy, and training the facial expression classification network.
- Building the raspberry PI and deploying algorithms on hardware.
- Awarded as a “National” student innovation and entrepreneurship project.
- My paper entitled “Optimized Faster-RCNN in real-time facial expression classification” has been accepted for presentation and attendance at International Conference on Communication, Network and Artificial Intelligence (CNAI 2019).

The Sixth “Internet +” College Students Innovation and Entrepreneurship Competition

Participant 2021

- Participant the designing of a garbage classification system and providing technical support

- Received the third prize in the Beijing Division

EXTRACURRICULAR ACTIVITIES

Belt and Road Summer camp

Leader September 2018 - June 2019

- Organized students to participate in volunteer services regularly, and assisted the school in organizing students to be involved in major volunteer activities, such as the interview and training of volunteers for the Winter Olympic Games, school-level double election, municipal square dance competition, etc.

International volunteer

Member June 2019 - Aug 2019

- Participated in the activities and assisted in the international work camp. In Wurzburg, Germany.

INTERNSHIP EXPERIENCE

JINGWEI HIRAIN

Algorithm engineer Dec 2020 - May 2021

- Responsible for collecting LiDAR data and writing video to point cloud data synchronization program.
- Responsible for implementing the vehicle motion state change point detection program.

Sugon

Algorithm engineer May 2020 – Sep 2021

- Responsible for cell image data and writing detection code based on the open-source code MMDetection program.
- Responsible for programming the parallel inference code to accelerate the speed of

HONOUR

- outstanding paper at National Electronic Warfare Conference 2022.
- Selected for the Humpty Dumpty Pilot Program of the Beijing Institute of Technology.
- University-level Beijing Institute of Technology first-class Scholarship in 2021,2022.
- University-level Beijing University of technology scholarship for excellence in 2017-2018, 2018-2019, 2019-2020.
- College-level Outstanding Student Cadre Award in 2017-2021

LANGUAGES & SKILLS

- English (proficient); Mandarin (native)
- Advanced research and academic writing skills
- Good interpersonal skills, team player, communication skills, leadership ability, confidence, and proficiency in presentation
- Master Python, C, Matlab