**范忠瑞**

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**求职意向**

数据挖掘研发工作；软件开发工作

**教育背景**

2014.9-2017.7 中国科学院计算技术研究所 计算机应用技术 工学硕士

2010.9-2014.7 郑州大学 计算机科学与技术 工学学士 **Top 20%**

**项目经历**

**2014.8-至今 电子数据侦察系统 专项技术研究中心项目组 核心开发人员**

* + *项目介绍：*分析海事情报，挖掘海上敏感舰艇及船只关联（常用路线，性能参数，比对结果），为上层决策系统提供核心信息及可视化接口。
  + *负责工作（独立完成）：*
    - 完成各项服务接口，实现对数据的各项分析功能；
    - 挖掘舰艇船只之间的相似关系。
  + *主要方法：*
    - 采用决策树算法对卫星电子数据以及船舶AIS数据进行船舶特征抽取，主要依据候选船舶特征与现有敏感船舶特征库参数；
    - 抽取船舶轨迹特征，主要有：出没区域，平均航速，平均载重，常用状态，船只MMSI等；
    - 提取船只舰艇之间的比较关系，利用抽取的船舶特征和轨迹特征。
  + *工作成果：*船舶相似判断准确率：90%。

**2015.5-至今 船舶水运信息平台 专项技术研究中心项目组 核心研发人员**

* + *项目介绍：*从不同数据源获取船舶水运信息，综合整理，去除冗余，发现船舶伪装，为上层分析船舶异常提供主要依据。
  + *负责工作（独立完成）：*找出海上航运主要路线，挖掘船舶和常用航道联系，达到航道发现与船队识别的目的。
  + *主要方法：*
    - 从已经整合清洗过的统一船舶数据库中提取船舶特征，从航运数据中抽取船舶轨迹特征；
    - 采用层次聚类算法聚类，对轨迹数据进行过滤，每一分类中采用DBSCANN算法进一步聚类；
    - 分析子航段属性，将聚类结果总结入库。
  + *工作成果：*子航段识别准确率：90%。

**获奖情况**

* 2011.10 优秀学生奖学金(**Top 10%**)
* 2012.05 河南省程序设计大赛铜奖

**个人技能**

■ 熟悉Java，C/C++， Python ■ 熟悉基本数据挖掘理论和方法 ■ 熟悉基本数据结构和算法

■ 熟练使用Hadoop，Storm ■ 英语：通过CET-6

**Zhongrui Fan**

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**Objective**

Data Mining Engineer, Software Engineer

**Education**

2014.9 - 2017.7 Master Institute of Computing Technology, Chinese Academy of Sciences Compute Application Technology

2010.9 - 2014.7 Bachelor ZhengZhou University Computer Science and Technology **Top20%**

**Project Experience**

**2014. 8**- **now Radar Electronic Data Target Recognition System Special Technology Research Center Designer & Developer**

* *Project Description:* Analysis of maritime information, mine the relationship between sensitive vessels at sea, providing the core information and visual interface for the upper decision making system.
* *Personal Responsibilities:*
  + Complete the service interface to achieve the analysis function of the data;
  + Mine the similarity between vessels.
* *Major methods:*
  + Adopt Decision Tree Classification Model to extract vessel features from satellite electronic data and ship AIS data, according to the characteristics of the candidate ship and the parameters of the existing feature database;
  + Extract the features of ship trajectory, mainly: the infested area, average speed, average load, commonly used state, vessel MMSI, etc;
  + Extract the comparative relationship between the ships, using the extracted characteristics of ships and trajectory characteristics.
* *Results:* Accuracy rate of ships similarity: 90%.

**2015.5 - now Ship water transport information platform Special Technology Research Center Designer & Developer**

* *Project Description:* Retrieve ship water information form different data sources, comprehensive arrangement, remove redundancy, and find the ship’s camouflage, which provides the main basis for the analysis of the upper layer.
* *Personal Responsibilities:* Find out the main lines of the sea shipping, mining ships and common channel links, to reach the purpose of Channel Discovery and fleet identification.
* *Major methods:*
  + Extract ship feature from the unified ship database that has been integrated and cleaned, and extract the characteristics of the ship’s trajectory from the shipping data;
  + Use hierarchical clustering algorithm to cluster, filter the trajectory data, adopt DBSCANN algorithm to cluster the data in each classification;
  + Analysis of sub segment attribute and storage of clustering result.
* Results: sub segment recognition accuracy: 90%.

**Awards**

* Excellent Scholarship for Encouragement (**top 10%**).
* Bronze Medal at Henan Province Programming Contest .

**Personal skills**

■ Familiar with Java, C/C++,  Python ■ Familiar with basic machine learning theory and practice

■ Familiar with data structure and algorithm ■ Familiar with Hadoop and Storm practice ■ English: CET-6