

A Advanced Approach To Construct E-Learning QA System

S.S. Pawar^{1*}, R.H. Kulkarni²

^{1,2}Computer Science Engineering, JSPM Narhe, SPPU Pune, India.

^{*}Corresponding Author: pawarashubhangi10@gmail.com

Available online at: www.ijcseonline.org

Accepted: 15/Aug/2018, Published: 31/Aug/2018

Abstract-- The Novel approach can yield high levels of performance and nicely complements traditional question answering techniques driven by information extraction. In order for question answering systems to benefit from this vast store of useful knowledge, they must cope with large volumes of useless data. Question Answering systems (QA) use similarity in questions and ranking the relevant answer to user. The web gives large data and that requires more time as well as no relevancy in answers. To solve this problem proposed system proposed novel Pair wise Learning to rANk model i.e PLANE which can quantitatively rank answer candidates from the relevant question pool. Specially, it uses two components i.e online learning component and one online search component. Our model is effective as well as achieves better performance than several existing questions answer selection system. User gets recommendation based on his profile. User recommends the new question to his friend and this is trust analysis so user can get top recommendation of newly arrived question of languages.

Keywords— Answer Selection, Community-based Question Answering, Question-Answer pairs, Pair wise learning technique.

I. INTRODUCTION

In the web user, often, the hunger for questions is probably due to several reasons: 1) the questions are poorly written, ambiguous or not at all interesting; 2) cQA systems can hardly address the newly published questions to the appropriate respondents; and 3) potential respondents have the corresponding experience, but are not available or are overwhelmed by the large volume of incoming questions. This case often occurs in vertical cQA forums, whereby only authorized experts can answer these questions. Regarding the first case, the quality model of the application has been well studied, which can assess the 9 resolved questions from the past to answer new questions. In fact, a large number of historical QA pairs, over time, have been archived in the cQA databases. Therefore, information seekers have a good chance of getting direct answers looking for repositories, instead of waiting long. Inspired by this, Wang et al. They have transformed the quality control task into the task of finding relevant and similar questions. However, candidates returned from the main application are generally associated with multiple answers and research on how to choose the correct answers from the relevant question group are relatively poor. When a question is asked, instead of naively choosing the best answer to the most pertinent question, In this paper, we present a new Pairwise Learning to Rank model, dubbed PLANE, which can quantitatively classify candidates from the relevant question group. Figure 1 shows

the workflow of the PLANE model, which consists of two components: offline learning and online research.

II. RELATED WORK

[1] Luong Nguyen (2017) has represented Special Statistics for segmenting histological structures in H & E stained tissue images. The author proposes two segmentations of graph theory methods based on local spatial color and neighborhood of nuclei statistics as well as design a new region-based score for evaluating segmentation algorithms. In one of the methods, pair wise pixel color statistics is measured in an H&E optimized color space built to enhance the separation between hematoxylin and eosin stains. This is expected to be successful in segmenting structures with well-defined boundaries (e.g., adipose tissues, blood vessels). Another method is designed to segment large amorphous histological structures (e.g. Tumor nests), where author relies on the spatial statistics of inter-nuclei distances.

[2] E. Bejnordi et al (2016) has represented automated detection of dcis in whole-slide h & e stained breast histopathology images. The author presents and evaluates a fully automatic method for detection of ductal carcinoma in situ (DCIS) in digitized hematoxylin and eosin (H&E) stained histopathological slides of breast tissue. The proposed method applies multi-scale superpixel classification to detect epithelial regions in whole-slide images (WSIs). Subsequently, spatial clustering is utilized to delineate regions representing meaningful structures within the tissue

such as ducts and lobules. A region-based classifier employing a large set of features including statistical and structural texture features and architectural features is then trained to discriminate between DCIS and benign/normal structures.

[3] F. Liu and L. Yang (2015) has represented A novel cell detection method using deep convolutional neural network and maximum-weight independent set. The author propose a novel algorithm for general cell detection problem: Firstly, a set of cell detection candidates is generated using different algorithms with varying parameters. Secondly, each candidate is assigned a score by a trained deep convolutional neural network (DCNN). Finally, a subset of best detection results is selected from all candidates to compose the final cell detection results. The subset selection task is formalized as a maximum-weight independent set problem, which is designed to find the heaviest subset of mutually non-adjacent nodes in a graph.

[4] J. Vicory et al (2015) has developed Appearance normalization of histology slides,” Computerized Medical Imaging and Graphics. The author presents a method for automatic color and intensity normalization of digitized histology slides stained with two different agents. In comparison to previous approaches, prior information on the stain vectors is used in the plane estimation process, resulting in improved stability of the estimates. Due to the prevalence of hematoxylin and eosin staining for histology slides, the proposed method has significant practical utility. In particular, it can be used as a first step to standardize appearance across slides and is effective at countering effects due to differing stain amounts and protocols and counteracting slide fading.

[5] X. Li and K. N. Plataniotis (2015) has demonstrated A complete color normalization approach to histopathology images using color cues computed from saturation weighted statistics. The author introduces a complete normalization scheme to address the problem of color variation in histopathology images jointly caused by inconsistent biopsy staining and nonstandard imaging condition. Method: Different from existing normalization methods that either address partial cause of color variation or lump them together, our method identifies causes of color variation based on a microscopic imaging model and addresses inconsistency in biopsy imaging and staining by an illuminant normalization module and a spectral normalization module, respectively. In evaluation, we use two public datasets that are representative of histopathology images commonly received in clinics to examine the proposed method from the aspects of robustness to system settings, performance consistency against achromatic pixels, and normalization effectiveness in terms of histological information preservation.

[6] J. L. Fine (2014) has represented 21st century workflow: A proposal Digital pathology is rapidly developing, but early systems have been slow to gain traction

outside of niche applications such as: Second-opinion telepathology, immunostain interpretation, and intraoperative telepathology. Pathologists have not yet developed a well-articulated plan for effectively utilizing digital imaging technology in their work. This paper outlines a proposal that is intended to begin meaningful progress toward achieving helpful computer-assisted pathology sign-out systems, such as pathologists’ computer-assisted diagnosis (pCAD). pCAD is presented as a hypothetical intelligent computer system that would integrate advanced image analysis and better utilization of existing digital pathology data from lab information systems. A detailed example of automated digital pathology is presented, as an automated breast cancer lymph node sign-out. This proposal provides stakeholders with a conceptual framework that can be used to facilitate development work, communication, and identification of new automation strategies.

[7] B.-R. Wei and R. M. Simpson (2014) has represented Digital pathology and image analysis augment bio specimen annotation and bio bank quality assurance harmonization. Standardization of bio repository best practices will enhance the quality of translational biomedical research utilizing patient-derived bio bank specimens. Harmonization of pathology quality assurance procedures for bio bank accessions has lagged behind other avenues of bio specimen research and bio bank development. Comprehension of the cellular content of bio repository specimens is important for discovery of tissue-specific clinically relevant biomarkers for diagnosis and treatment. While rapidly emerging technologies in molecular analyses and data mining create focus on appropriate measures for minimizing pre-analytic artifact-inducing variables, less attention gets paid to annotating the constituent makeup of bio specimens for more effective specimen selection by bio bank clients. Pathologist review of bio repository submissions, particularly tissues as part of quality assurance procedures, helps to ensure that the intended target cells are present and in sufficient quantity in accessioned specimens.

[8] M. T. McCann et al (2014) has represented Images as occlusions of textures: a framework for segmentation. The author proposes a new mathematical and algorithmic framework for unsupervised image segmentation, which is a critical step in a wide variety of image processing applications. We have found that most existing segmentation methods are not successful on histopathology images, which prompted us to investigate segmentation of a broader class of images, namely those without clear edges between the regions to be segmented. We model these images as occlusions of random images, which we call textures, and show that local histograms are a useful tool for segmenting them.

[9] P. Isola et al (2014) has proposed Crisp boundary detection using point wise mutual information. The author propose a novel method for detecting such boundaries based on a simple underlying principle: pixels belonging to the

same object exhibit higher statistical dependencies than pixels belonging to different objects. We show how to derive an affinity measure based on this principle using point wise mutual information, and we show that this measure is indeed a good predictor of whether or not two pixels reside on the same object.

III. METHODOLOGY

Naive Bayes algorithm

This algorithm is used to get review is positive or negative according to that we get relevancy in answer.

Input: Review

Processing:

Step 1:Take review

Step 2:Preprocess the review

Step 3:Pass to naive bayes class.

Step 4:Get positive and negative score according to specifies its dictionary.

Step 5:Get max score and declare as positive or negative.

Output:Predicated class of review.

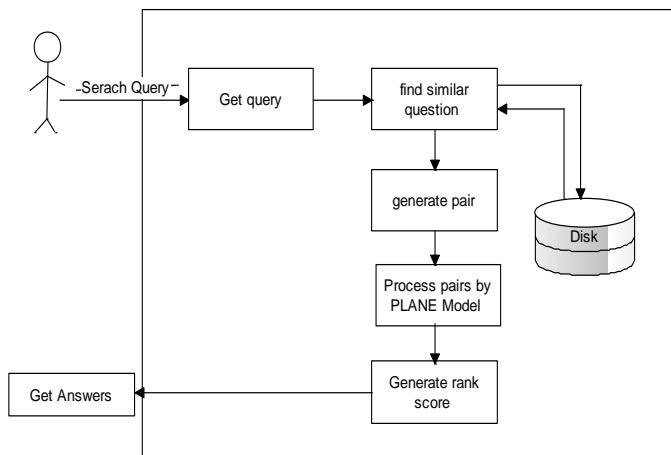


Fig.1- System Design Evenshtein distance Algorithm

This is used to get Similar question for entered question

Input. :User entered question

Processing:

1. text string x = a1 for matching

2.Data From Available questions

3.Distance to match string x in face book data

Processing System will asked question as string and will match that question available from database, according to specified distance.

Output: Get matched similar questions.

IV. RESULTS AND DISCUSSION

System presents a novel scheme to rank answer candidates via pair wise comparisons. The system consists of one offline learning component and one online search

component. In the offline learning component, we first automatically establish the positive, negative training samples in terms of preference pairs guided by our data-driven Approach. Present a novel model to jointly incorporate these types of training samples. In the online search component, we first collect a set of answer candidates for the given question via finding its similar questions. We then sort the answer candidates by working on the offline trained model to judge the preference orders. Proposed systems that allow a user to ask a question for computer language and receive an answer quickly and relevantly, with sufficient context to validate the answer. Current search engines can return ranked lists of answer with relevancy. System will check voting and review and according to that it will arrange ascending order.To match the feature we using lavenstine distance algorithm.

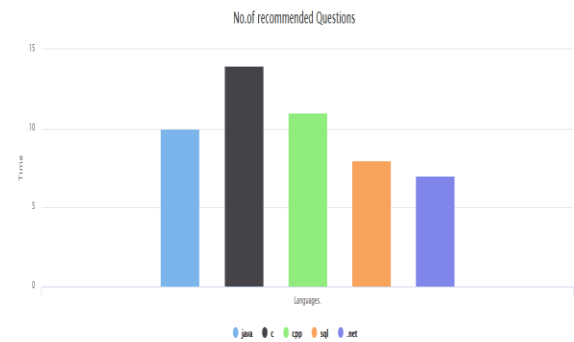


Fig.2- Graph: no of recommended question

Result table: 1

language	Recommended question
java	10
c	14
cpp	11
sql	8
.net	7

V. CONCLUSION AND FUTURE SCOPE

This paper present a system for selecting answers in the QA system. Result is relevant and ranked .It include two methods/model such as offline search method and online search method. In learning offline method, instead of a taking a lot of time and effort, it automatically creates positive, neutral, negative pairs. The online method, a particular question is , first of all, gather all a group of answers to find candidates by their similar questions. So we use the offline model to classify candidate responses through pair-wise comparison. Proposed system will give top recommended question to user according to trust based analysis.

The future work for this topic is In future system will work on large dataset .Also work for Medical community system.

ACKNOWLEDGEMENTS

This work is supported in the area of E-learning structure for selecting best answer and recommended the top asked question to other users.. Author is thankful to ‘Department of Computer Engineering, JSPM, Narhe Pune’ and ‘Faculty of Engineering and Technology (FET), Savitribai Phule Pune University, Pune’ for providing the facility to carry out the research work.

REFERENCES

- [1] W. Wei, Z. Ming, L. Nie, G. Li, J. Li, F. Zhu, T. Shang, and C. Luo, Exploring heterogeneous features for query-focused summarization of categorized community answers, *Inf. Sci.*, vol. 330, pp. 403423, 2016.
- [2] X. Li, Y. Ye, and M. K. Ng, Multivcrank with applications to image retrieval, *TIP*, vol. 25, no. 3, pp. 13961409, 2016.
- [3] W. Wei, G. Cong, C. Miao, F. Zhu, and G. Li, Learning to find topic experts in twitter via different relations, *TKDE*, vol. 28, no. 7, pp. 17641778, 2016
- [4] W. Wei, B. Gao, T. Liu, T. Wang, G. Li, and H. Li, A ranking approach on large-scale graph with multidimensional heterogeneous information, *TOC*, vol. 46, no. 4, pp. 930944, 2016.
- [5] X. Wei, H. Huang, C. Lin, X. Xin, X. Mao, and S. Wang, Reranking voting-based answers by discarding user behavior biases, in *Proceedings of IJCAI15*, 2015, pp. 23802386.
- [6] Q. H. Tran, V. Duc, Tran, T. T. Vu, M. L. Nguyen, and S. B. Pham, Jaist: Combining multiple features for answer selection in community question answering, in *Proceedings of SemEval15. ACL*, 2015, pp. 215C219.
- [7] Savenkov, Ranking answers and web passages for non-factoid question answering: Emory university at TREC liveqa, in *Proceedings of TREC15*, 2015.
- [8] A Joint Segmentation and Classification Framework for Sentence Level Sentiment Classification Duyu Tang, Bing Qin, Furu Wei, Li Dong, Ting Liu, and Ming Zhou. *EEE/ACM transjection on audio search data, language processing*, no. 11,november 015
- [9] Q. Le and T. Mikolov, Distributed representations of sentences and documents, in *Proceedings of ICML14. Morgan Kaufmann Publishers Inc.*, 2014, pp. 11881196.

- [10] T. Joachims, L. Granka, B. Pan, H. Hembrooke, and G. Gay, Accurately interpreting clickthrough data as implicit feedback, in *Proceedings of SIGIR05. ACM*, 2005, pp. 154161.

Authors Profile

S.S.Pawar is a PG scholar in Computer Science and Engineering Department at Jayawant Shikshan Prasarak Mandal's Narhe Technical Campus, Narhe, Pune India. She has completed B.Tech. (CSE) from Dange college of Engineering,, India. Her research interests are Data Mining.



R.H.Kulkarni completed Master of Computer Engineering and Ph.D. and currently working as Professor in Department of Computer Engineering JSPM Narhe. Her research interests are Data Mining

