

SMC eNewsletter's Student Corner Column (Sept 2024 Issue)

Chun Sing Lai

In this issue of the Student Corner Column, we interview Dan Liu, co-author of the paper “Evidence Mining for Interpretable Charge Prediction via Prompt Learning” published in the IEEE Transactions on Computational Social Systems (Vol. 11, No. 4, Aug 2024).

1. Please tell us a bit about your background and your research area.

I am a master's student in the School of Computer Science and Artificial Intelligence, Wuhan University of Technology, China, with a primary focus on natural language processing. My research is centred around the application of deep learning techniques to text analysis, such as legal text analysis and sentiment analysis. I am committed to developing and researching intelligent systems that can comprehend and generate human language effectively.

2. How did you become interested in your field?

AI technology is increasingly applied in the law text mining domain. Legal charge prediction is typically treated as a multi-classification task, the weak semantic connection between the fact descriptions and charge labels limits interpretability. Our research focuses on improving the accuracy and interpretability of the charge prediction task to support fairer and more transparent judicial decisions.

3. What motivated you to join the IEEE SMC Society?

I have joined the IEEE SMC Society to exchange ideas with top global experts, expand my perspectives, and enhance my research and practical skills. As a student, I believe that the IEEE SMC Society can help me broaden my horizons and improve my research skills. In addition, by participating in its conferences and events, I keep updated with the latest research and industry trends which are crucial for my academic and professional development.

4. What motivated you to publish in the IEEE Transactions on Computational Social Systems?

I have chosen to publish my work in the IEEE Transactions on Computational Social Systems because of its prestigious reputation and impact in the field of computational social science. This journal is known for its high-quality publications. By publishing in this journal, we aim to engage with experts on cutting-edge technologies and stay informed about industry trends. Furthermore, the journal's rigorous review process ensures that our work is thoroughly vetted and reaches the highest standards of academic excellence.

5. What is the main innovation in your paper titled “Evidence Mining for Interpretable Charge Prediction via Prompt Learning” and its importance to IEEE Transactions on Computational Social Systems?

The main innovation of our paper is the use of the prompt-based learning method to generate legal charges, which better incorporates the semantic information of the charge labels and ensures that the generated labels are interpretable. This study shows how generative deep learning technology can be used to solve address the real-world legal issues, especially in terms of fair legal adjudication and transparency.

6. Where would you see yourself in 5-years' time career wise?

In the next five years, I hope to become a Senior Engineer and take on a leadership role within my team. To achieve this goal, I will focus on artificial intelligence and aim to publish high-quality academic papers. Additionally, I hope to participate in and lead several practical projects, establish my reputation in the industry, and drive innovation and development in the field.

Biography:



Ms. Dan Liu obtained her B.E degree from Wuhan University of Technology in 2021 and her M.E degree from the same university in 2024. Her research interests include natural language processing and multimodal sentiment analysis. Up to now, she has published two papers on prompt learning and participated in several NLP practical projects. She was honoured as a National Outstanding Student Award in 2022 and received the Outstanding Graduate Award in 2024.