

Electrical Engineering and Computer Science

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Student Conferenceship Chairs,

I am writing in strong support of Zhaohui Wang's application for the ACSA Student Conferenceship to attend ACSAC 2025. Zhaohui is a final-year Ph.D. candidate in Computer Science at the University of Kansas, and I am his Ph.D. advisor.

Zhaohui is an exceptionally research-active student whose work focuses on IoT security and privacy. His recent work, entitled *InteractionShield: Harnessing Event Relations for Interaction Threat Detection and Resolution in Smart Homes*, is accepted at ACSAC 2025. This work studies smart-home IoT systems with user generated trigger-condition-action interaction rules. As systems grow in complexity, these rules often interact in unexpected ways, creating conflicts that may result in unsafe or insecure behaviors. Zhaohui's work presents a comprehensive framework that decomposes rules into atomic events, models event relations, and systematically detects and categorizes all possible rule conflicts. Zhaohui developed an optimization-based conflict resolution strategy that preserves valid functionality while mitigating risks. Over the course of his doctoral studies, Zhaohui has built a coherent and impactful body of research on IoT security and privacy. He has published two papers and the ACSAC paper is the third paper in this direction.

Attending ACSAC is especially important for Zhaohui at this stage of his career. Presenting this work as first author will allow him to receive critical feedback from domain experts and form collaborations that will shape his future as a security researcher. As a final-year Ph.D. student currently on the academic job market, Zhaohui will also greatly benefit from the visibility and professional connections provided by this international venue.

I also wish to emphasize Zhaohui's financial needs. With several of my research grants expiring in 2025, my ability to provide travel support to students is now very limited. Besides, Zhaohui has already applied for internal university and department travel grants to support attendance at another conference in 2025, which limits his eligibility for additional institutional support. Without this Conferenceship, attending ACSAC would present a significant financial hardship.

In summary, Zhaohui is a highly motivated and high-performing Ph.D. candidate. Attending ACSAC 2025 is important for his professional development and financial support is necessary for him to take full advantage of this opportunity. Therefore, I strongly endorse his application for the ACSA Student Conferenceship.

Sincerely,

Fengjun Li