

Interview with Dr. Jianwei Niu

1. How do you start a research project?

I begin by developing domain knowledge so that I can identify open problems in the area.

I review the literature to determine the research trends and then, ideally, identify a real-world (preferably industry) need in the area. Finally, the decision to pursue an avenue of research is informed by my personal interest.

2. What specific tools do you use (e.g., library resources, computer software, forms of measurement, statistics)?

I haven't used many tools beyond Google Scholar and the ACM libraries.

Some of my students have recently been using a tool called TAMS to transcribe and analyze interviews, but we have yet to begin the analysis so I can't say much about it at this point.

3. How did you gain your expertise with the various tools you use?

Hands-on experience. Just using the tool to find out how it can help me with my research.

4. What are some important experiences you suggest for a novice researcher?

Follow the work of a leader in your area of interest. Also, maintain a research journal with summaries of the papers that you read.

5. If I wanted to learn how to become a competent researcher, what specific tools would you suggest I work with?

Rather than a tools, I would suggest reading the work of Tao Xie and Mary Shaw that provides advice on how to do software-engineering research.