We're really excited that you're applying to PhD programs! Although there's never one right way to approach the PhD application materials (SoP + resume), here's some advice for the process collated by current PhD students.

Statement of Purpose Tips

Organization
- A common structure for SoPs is to have
  - (1) *An introduction paragraph*. By the end of this first paragraph, effective SoPs usually state which area of CS you would like to pursue your PhD in (e.g., network and security) and a one-sentence overview of the research experiences you have had (e.g., years of research, areas of research) that have helped prepare you for the PhD.
  - (2) *Body paragraphs.* These paragraphs step through research, academic, work, or other experiences that have helped prepare you for research. They might also discuss what topics you're interested in working on in the PhD.
  - (3) *A final school-specific paragraph.* While many other paragraphs in the SoP don't need to change between schools, the last paragraph is typically school-specific: e.g., "I think Stanford University is the perfect place for me to pursue a PhD because ___. I am especially interested in working with professors X, Y, and Z, and am especially interested in their work on A, B, and C."
- Consider using bolded, short section headers to help guide the reader. These are useful for labeling prior research experiences, especially when that research experience is diverse. These also assist the reader if you choose to cover material in an order which is not chronological.

General advice
- Try to avoid overly general statements in the introduction that could apply to any applicant (e.g. "Ever since I was a child, I have been interested in unraveling the mysteries of intelligence…")
- Aim to make each body paragraph a focused story about a research or work experience, starting with motivation (why the problem is important), followed by how you come up with a solution, highlighting your creativity, initiative, and resilience throughout the research process. The goal is to discuss what has prepared you to do research in the PhD, as well as allude to what you're interested in working on in the future.
- In general, use the active voice: "I published," "We published," "I presented."
- SoPs are commonly 2 pages long. Sometimes SoPs are too long because they dive too deep into the technical details of a project (focus on your contributions) or because they rehash the entire resume (you don't need to include all experiences in your statement).

Tips for describing projects
- When discussing a research experience, try to motivate the project (why you think that the problem is worth solving). This is a useful exercise in being able to articulate why your research matters, and how your project fits into a broader research context.

- Try to emphasize your *personal* creative contributions to the research projects you've worked on, as opposed to only describing the project generally.
- It's great to emphasize anything you *learned* from each experience, especially if it points forward to what you want to work on in your PhD. For example, "Training vision-language models in this experience showed me how important data quality is for foundation models, which is why I want to work on principled methods for data curation in my PhD." You might also discuss what general techniques you learned, e.g. "This project developed my skills in _____ technique."
- If you encountered challenges in the project, it can be great to highlight these: resilience, problem-solving, and a dedication to learning from failure is really valued in a PhD. For example, if you applied method X for industry role Y, did it work "off the shelf?" If not, why not?

Resume / CV Tips

Organization
- Most CVs are around 1-2 pages.
- Common sections include: educational background, research experiences, and publications, preferably on the first page. Some applicants who have personal websites will also include a link to their personal site; others have work experience, teaching experience, or personal projects they want to highlight.
- In general, move the publications section towards the top of the resume.
  - It's okay to only have a few items here.
  - It's acceptable to list work which is under review (so long as you clearly label it as such).

Content:
- Resume bullet points often start with an assertive (strong) verb, past tense if this experience is done and simple present tense if it is ongoing (e.g. 2020.2--Present).
- Ideally bullet points are each around 1 line long.

Links to Other Resources

- Video on how to write to communicate effectively: https://youtu.be/vtlzMaLkCaM?t=3360
- https://cs-sop.org/ is a collection of statements of purpose from previous applicants
- Academic CV explanation: https://grad.illinois.edu/document/student-success/curriculum-vitae-tips-and-samples