How to write an Introduction section?

Below is a list of considerations when writing your introduction:

What information is included in the introduction?
- Provides background needed to both understand the work done in the paper and its importance
- What has been done in the field that is directly related to your research project
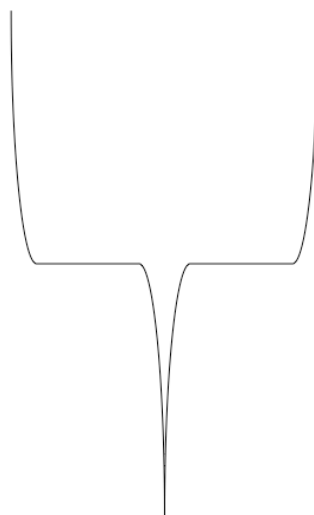- What are you adding to this field through your research project? What problem are you addressing in this work?

What is the point of the literature review?
- A research paper tells a story of the research process.
- The existing literature helps us to point out not only what has been done but also what gaps exist in a field.
- In order to move forward in the research field in a smart way we need to know what has been done.
- This also helps us to avoid reinventing the wheel; or redoing past work.
- I do not expect you to reference every paper in the field! But, I do expect you to acknowledge some of the most relevant work that has been done and how it motivates your research project.

Who is your audience?
- Assume your audience is composed of computational scientist

Format of introduction—the funnel approach

- Broad Information; Background on the general research topic
- Start to transition into why the specific topic in this field is particularly important to study
- Establish the specific problem you are trying to tackle in this work and its purpose.
- Finish with the major result or conclusion of your work.

Writing Style:
- Write clear simple sentences
- Avoid redundancies (young juvenile)
- Avoid repetition
- Avoid slang
- Avoid contractions (let's)
- Avoid overuse of **this**- be specific
- Passive voice
    - Passive voice: "The brakes were slammed on by her."
    - Active voice: "She slammed on the brakes."
- Write about published work in the present tense
- Write about your data in the past tense

Checklist for writing an introduction:
- Clear statement of problem being addressed in this work
- Logical argument provided as to why this problem was addressed
- Format follows the funnel approach
- All sentences lead to what was done in this study
- All statements of fact or opinion are referenced