Pointers on Presentations
A fantastic resource.

- Read Dr. Vander Zanden's advice on giving effective research presentations:
  - http://web.eecs.utk.edu/~bvz/presentation.html
The Four Golden Questions of a research talk:

- Where are we now?
- Where are we going?
- How did we get there?
- What is left for the future?
- Why should they care?

Keep the audience apprised of the bigger picture:

Paraphrase from Dr. Plank:

Why should they care?
BVZ's Advice.

- Average adult attention span is 20 minutes.
- If you change topics, provide a summary and a break.
  - Give them a mental break.
  - Check out what your audience is doing in 20 minutes.
Introduce concrete examples before formalism.

With software, do a demo before explaining the details.

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BIZ’S ADVICE.
The point is – don’t junk up your slides.

I don’t agree. I’m fine with Times-Roman.

Dr. Vander Zanden says that “sans-serif” fonts are better than not.
BVZ's Advice.

- Put a header on every slide with a title.
- Do not clutter your background.
- Do not use complete sentences unless they are pithy.
- They start to listen to you. People read all of your slides before they start. They are pithy.
- Make your bullets short and snappy.
- Limit your bullets per slide to 5 or 6.
BVZ's Advice.

- A picture is worth 1000 words.
- Special effects are typically distracting.
- Screen shots and code listings are useless.
- A picture is worth 1000 words.

BVZ's Advice.
• Face your audience, not the screen or your notes.

  – Control the talk.
  – Don't get bogged down by questions.

  Keep the presentation moving.

  • Bring a glass of water.
  • Bullets are pithy. Shockingly, it's harder to read your slides when your bullets are pithy.
  • Do not read your slides.

• You are your own worst critic.

BVZ's Advice: During the Presentation
My additions to BZ's Advice

• Talks and papers are two different beasts

• Papers need to be complete and correct.

• Talks need to be neither complete nor provably correct.

But they need to sustain the audience’s interest in your work!

Corollary: Talks need to be neither complete nor provably correct.

Talks are there to get your audience interested in your work. And then to read your paper.
My additions to BVZ's Advice

- Allow the audience to navigate where you are.
  - Outline in the beginning
  - (with timings for long talks)
  - Tell them where you are.
  - (First few words of every slide)
  - Know your talking style and go with it.
  - Know your slide style and go with it.
  - Remember to summarize between sections.
- If things get too dry, give the audience a break.
My additions to BVZ's advice

- What's good in a paper is often not good in the talk.
- What's disrespectful to your audience.
- Going overtime shows a lack of preparation and is
  disrespectful.
- Unreadable graphs and graphics are lazy.
- Slides filled with text are lazy (including these).
- Pictures, pictures, pictures.
- Prepare and iterate.
My additions to BVZ's Advice

- Have your slides on your computer, not on Google drive.
- If someone wants you to put your talk on a jump drive for their computer, do due diligence.
- Have proper cables.
- Neither PowerPoint nor OpenOffice/LibreOffice are really portable.
- PDF can have scaling issues.
- If you can, know your venue & your equipment.

● If you can, know your venue & your equipment.
My additions to BVZ’s Advice

- SPEND TIME ON YOUR GRAPHS!!!!
- What’s good in a paper is often not good in a talk.
- Strive for clarity, simplicity, cleanliness.
- Spend time on your graphs!!!
My additions to BVZ's Advice

- Don't be afraid to annotate/highlight things that are important in your graphs.
- Put the same graph over multiple pages and highlight different things.
- Here's an example from a talk I gave at USENIX FAST in 2013.
This was the core set of graphs.
- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache
- Performing buffer-constant on various buffer sizes
- Lots of comparisons.

Performance
Performance

- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache

Lots of comparisons.
3.4 GHz Intel Core i7-3770

- Performing buffer-constant on various buffer sizes
- Lots of comparisons.
- 256 KB L2 Cache, 8 MB L3 Cache

Performance
Lots of comparisons.

- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache

Performing buffer constant on various buffer sizes.

Memcpy & XOR are as you'd think.

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“Anvin*2" is a technique for multiplying 128 bits by two in any Galois Field with just a few SSE instructions (Linux Kernel RAID-6).

Memcpy 8 XOR are as you'd think.
Lots of comparisons.

- Performing buffer-constant on various buffer sizes
- 256 KB L2 Cache
- 8 MB L3 Cache
- 3.4 GHz Intel Core i7-3770

If you're fast enough, you can see the effects of saturating the L2 and L3 caches. If too big, you can see it.
Traditional techniques (Rizzo, Jerasure, Onion Networks) don't get close to cache line speeds.
Non-traditional techniques do better, but require amortization for $m=8$ and $m=16$. 
Our techniques perform identically to "Anvin*2" for $w = 4, 8, 16$ and $32 = w$ and $64 = w$.

- Cache limited.
- Alternate mapping makes a significant difference.

For $w = 4, 8$ and $16$.

"Our techniques perform identically to "Anvin*2"".
My additions to BVZ's Advice

- Cite work when you lift it.
- Let them make you look bad! They will be lazy and will steal your slides, so don't about their paper and ink costs.
- You can give them 1000 pages – you don't care.
- Looks good (check your animations).
- Go through your slides, and make sure that the PDF looks good (check your animations).
- Make sure that the PDF has citation information on page one.
- When people ask for your slides, give them PDF and not PPT / ODP.
My additions to BVZ's Advice

- Go over your presentation before you give it.
  - If you have given it before.
- Mind the onion loaf.
- Don't be hungover.
  - If parts are really hard, then script them.
  - If you are inexperienced, go over it "live".
  - Even if you have given it before.
My Biggest Disaster – DEC SRC, 1990

The senior people present:

Kai Li (my advisor)
Princeton.
Founder of Data Domain (sold to EMC in 2009 for 2.1 billion)

Ed Lazowska
Washington.
Multiple advisory boards to congress & the president.

David Cheriton
Stanford.
"Professor billionaire" 580th wealthiest person in the world (Forbes)

John Guitart
MIT.

Butler Lampson
SRC.
Turing award Xerox PARC.
Founder of Data Domain.

[Links to Kai Li, Ed Lazowska, David Cheriton, John Guitart, Butler Lampson]
My Biggest Disaster – DEC SRC, 1990

The students present (that I remember):

Mark Greenstreet
Professor at UBC

Kathy Yellin
Professor at Berkeley

Jeff Chase
Professor at Duke

Tom Anderson
Professor at Washington, then back at Berkeley

Brian Berishad
now Russia, in Seattle, operations led Google

to Washington, to Washington
What did I do?

- I had given the talk three months before to 300 people, so I didn't even give it a browse.
- I went to Gordon Biersch the night before and had about 6 beers.
- I didn't mind the onion loaf.
- And I got to watch faculty and students alike view me with disappointment and disdain.
- I didn't even give it a browse. So I didn't even give it a browse.
Regardless of experience or repetitions, I always go through my slides before I give a talk.

Even today’s lecture, that I have given 8 times now.

**Bottom Line**
(Go over the hall of shame)