

Presentation Tips

► METIS



Agenda

- Content
- Slides
- Text
- Images
- Audience
- Presentation





CONTENT

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Most of your work will end
in the cutting room floor

What to include?

- Introduction

- ▶ 1 slide
- ▶ Motivation, objectives and goals



What to include?

- Introduction
 - ▶ 1-2 slides
 - ▶ Data, Models, Metrics, Tools
- Methodology



What to include?

- Introduction
 - ▶ 1-2 slides
- Methodology
 - ▶ ROC Curve, Accuracy, \$ Saved, Adj. R2, MSE
- Results



What to include?

- Introduction
 - ▶ 1 slide
 - ▶ Recommendations, interesting insights
- Methodology
- Results
- Conclusions



What to include?

- Introduction
 - ▶ 1 slide
- Methodology
 - ▶ If you had more time, what else would you do?
- Results
- Conclusions
- Future Work



What to include?

- Introduction
 - ▶ Many slides
 - ▶ Everything else
- Methodology
- Results
- Conclusions
- Future Work
- Appendix



What to include?



Work Performed



SLIDES



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“ Perfection is achieved, not
when there is nothing more
to add, but when there is
nothing left to take away ”

ANTOINE DE SAINT-EXUPÉRY



$$\begin{aligned}
& \frac{-1}{2m} \frac{d^2\psi}{dx^2} + E\psi = E\psi \quad \Psi e^{-\frac{iE}{\hbar}\frac{x}{\Delta t}} \quad k = \frac{\omega_1 - \omega_2}{4\pi\epsilon_0\epsilon_r} \quad V_L = \sqrt{R_m L} \quad \vec{F}_m = \vec{B} I \ell = \frac{\mu_1 I_1 I_2}{2\pi d} \ell \\
& U_{ef} = \frac{U_m}{\epsilon - k \frac{\omega_1 - \omega_2}{\hbar^2}} \quad E = \hbar\omega \quad \Delta t = \frac{\hbar}{\sqrt{1 - \frac{V_L^2}{c_L^2}}} \quad 4\pi r^2 \quad X_L = \frac{U_m}{I_m} = \omega L = 2\pi f L \quad F_g = \frac{m_1 m_2}{r^2} \mathcal{X} \\
& \vec{B} = \mu_1 \frac{NI}{\ell} \sqrt{2} \quad V = \frac{mh}{2\pi r m_e} \quad \Phi_E = \frac{F_E}{\rho_0} = k \frac{\Omega}{r^2} Q \quad I_m = \frac{4\pi n_1 n_2}{(n_2 + n_1)^2} \quad R_m = \frac{C}{T} \quad k = \pm \sqrt{\frac{2m}{\hbar^2} (E - V_0)} \\
& K = \frac{P^2}{2m} m_0 = \frac{M_m}{N_A} = \frac{M_r \cdot 10^{-3}}{N_A} \quad m = N \cdot m_0 = \frac{Q}{N_A} \quad M_m = \frac{E_C}{q} \int_{-a/L}^{+a/L} \sin(\omega t + \phi) dy \\
& \lambda = \frac{\hbar}{\sqrt{2eUm_e}} \quad R = \rho \frac{\ell}{S} \quad l_t = l_0(1 + \alpha \Delta t) \quad I = \frac{U_e}{R + R_i} \quad 2 \quad \omega = 2\pi f \\
& f_0 = \frac{1}{2\pi} \sqrt{\frac{g}{\ell}} \quad \Psi_{0x} = \sqrt{2/L} \sin \frac{n\pi x}{L} \quad E = mc^2 \quad \frac{\sin \alpha}{\sin \beta} = \frac{v_1}{v_2} = \frac{w_2}{w_1} \quad V = \frac{1}{\sqrt{E + \mu_e}} = \frac{C}{\sqrt{E_r + \mu_r}} \\
& \oint \vec{B} d\ell = \mu_0 \iint \vec{J} dS \quad \vec{S} = \frac{1}{\mu_0} (\vec{E} \times \vec{B}) \quad \beta = \frac{E = \frac{1}{2} \hbar \sqrt{k/m}}{\Delta I_C} \quad \phi_e = \frac{\Delta E}{\Delta t} \frac{w_1}{x} + \frac{w_2}{x'} = \frac{w_2 - w_1}{n} \\
& C(s) \quad V_L = \sqrt{\frac{3kT}{m_0}} = \sqrt{\frac{3kTN_A}{M_m}} = \sqrt{\frac{3R_m T}{M_r \cdot 10^{-3}}} \quad E_k = \frac{h^2}{8m_L^2} \quad \oint \vec{D} d\vec{S} = Q^* \\
& \gamma = \frac{\ln 2}{T} \quad F_h = Sh\rho g \quad E = \frac{\hbar k^2}{2m} \quad 1 \text{ pc} = \frac{1 \text{ AU}}{r} \quad S = \frac{U}{I} \quad F_V = \oint \frac{F_h}{R} d\theta \cos \alpha \\
& \left(\frac{E_e}{E} \right) = \frac{2 \cos \vartheta_1 \cos \vartheta_2}{2\pi \sqrt{P_L}} \quad f_0 = \frac{1}{2\pi} \frac{Q}{\sqrt{P_L}} \quad S_T = \frac{1}{2} [1 + (1 - 1)^2] \cdot \star T \cdot 1
\end{aligned}$$

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Reading is a Priority

- ▶ Read the color of the words as fast as you can



Stroop Effect

BLUE

GREEN

YELLOW

PINK

RED

ORANGE

GREY

BLACK

PURPLE

WHITE

BROWN

BLACK



Reading is a Priority



>



Bad Slide

Having too much text can be distracting. It is recommended to limit the number of words that are used on each slide. Otherwise, the audience will be reading instead of listening to you. You should not be competing with your slides. A rule of thumb is to use no more than 30 words per slide. However, less is better.



Better

Having too much text can be distracting. It is recommended to **limit the number of words** that are used on each slide. Otherwise, the audience will be reading instead of listening to you. You should not be competing with your slides. A rule of thumb is to use **no more than 30** words per slide. However, less is better.



Best

< 30 words per slide

Average reading speed

200 words / minute

Avoid Unnecessary Animations

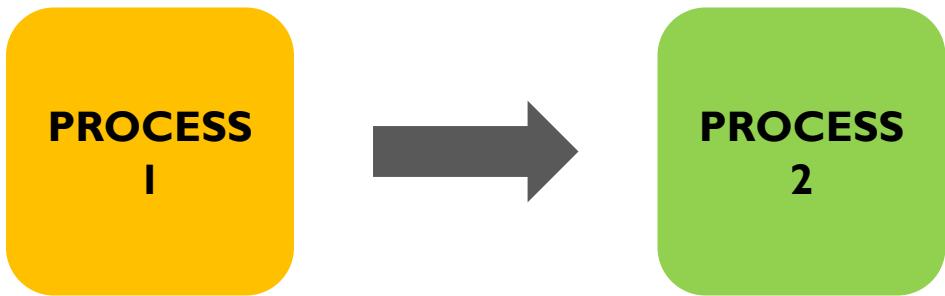


Better

PROCESS
I



Better



Better



Align Objects



“One cannot think well, love well, sleep well, if one has not dined well.”

Virginia Wolf

Align Objects



“One cannot
think well,
love well,
sleep well,
if one has not
dined well.”

Virginia Wolf

Slides Summary

- Simple
- Align objects
- Avoid too much text
- Speelchek
- Avoid flashy animations and slide transitions
- 1-2 slides per minute





TEXT



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Font Size

40 point

30 point

20 point

10 point



Font Types

Serif Font

Serif

Thick and
thin strokes

Thin

Times

Sans-Serif Font

Plain

Strokes have
even width

Thin

Arial



Fonts can emphasize

SLOW

FAST

SLOW

FAST



Fonts can emphasize



Alignment

METIS

83 King Street, Suite 250
Seattle, WA
(555)555-1234

METIS

83 King Street, Suite 250
Seattle, WA
(555)555-1234



Contrast

YELLOW TEXT

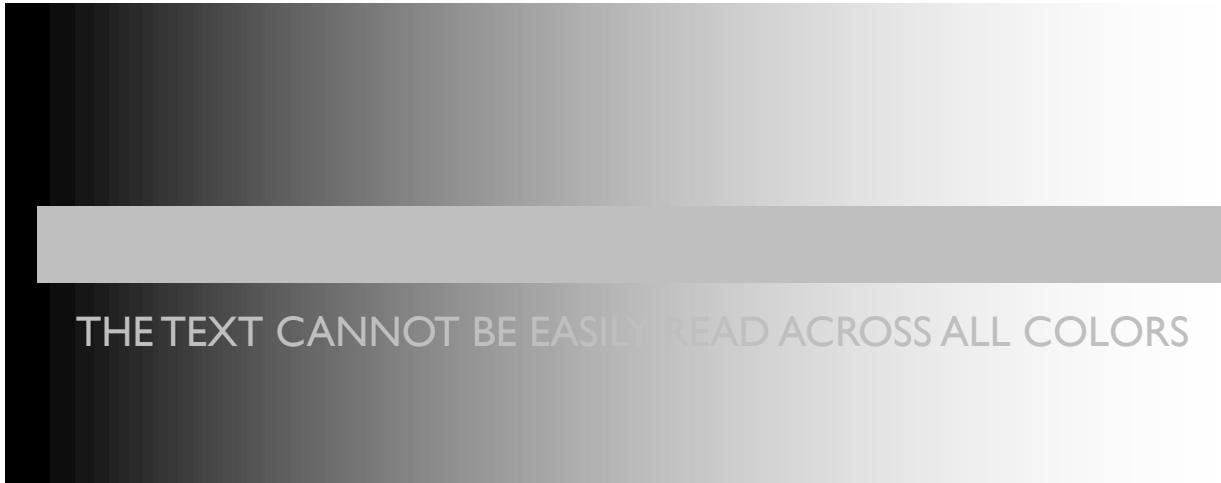
BLUE TEXT

YELLOW TEXT

BLUE TEXT



Avoid Gradients



Text Summary

- Appropriate Size
- Sans serif fonts for body text
- Decorative fonts for headers
- Align text left or right
- Strong color contrast

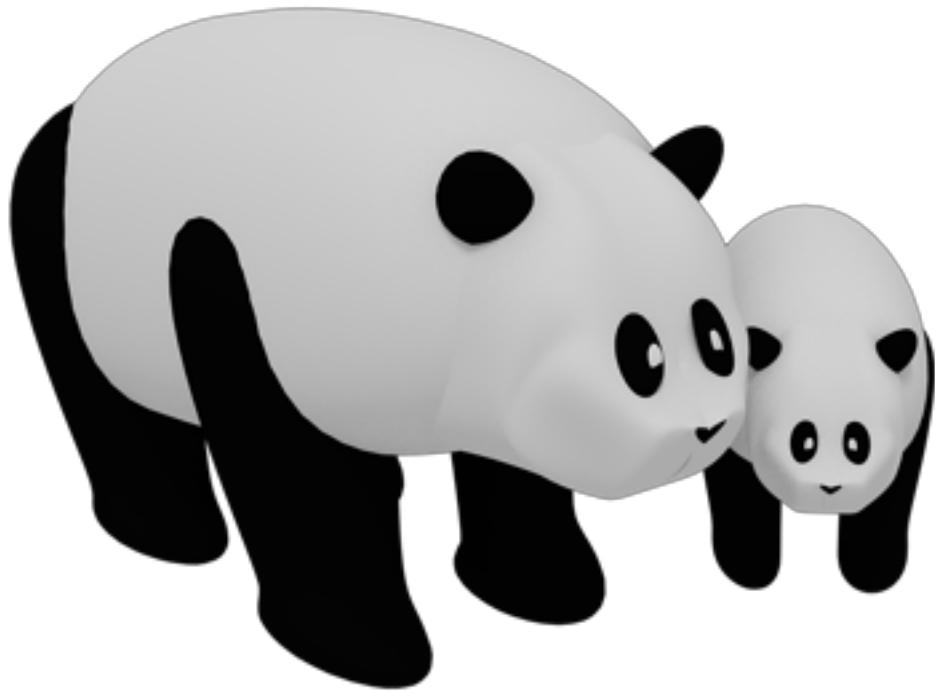




IMAGES

METIS

PANDA BEAR



PANDA BEAR



Images Can Help Emphasize

- Strength
- Knowledge
- Kindness



Images Can Help Emphasize

Strength



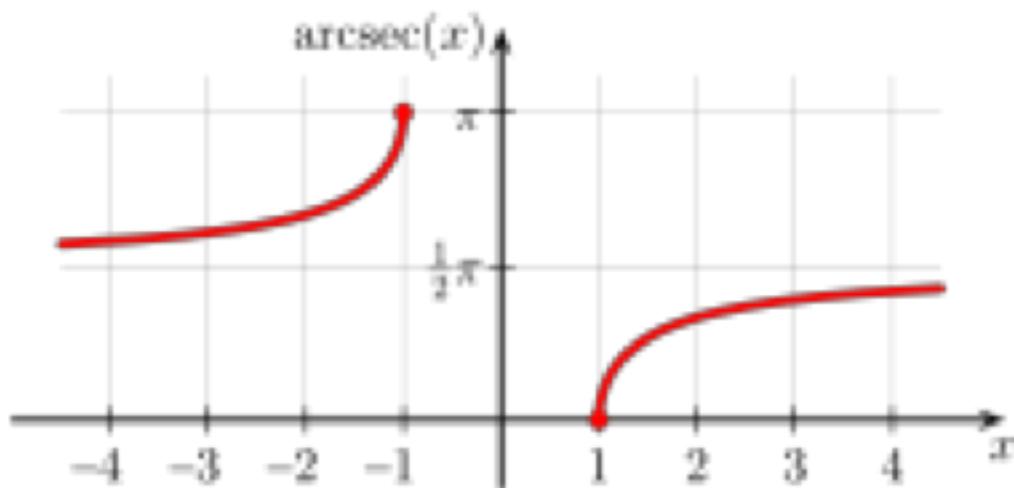
Knowledge



Kindness



AVOID LOW RESOLUTION



AVOID LOW RESOLUTION

JPG

PNG

SVG

JPG

PNG

SVG

You can use the following code in Jupyter Notebooks

```
%config InlineBackend.figure_format = 'svg', or  
fig.savefig('filename.svg', format='svg')
```



Images Summary

- Use high quality images
- Avoid clip art
- Use images to emphasize
- Avoid low resolution images
- Use jpgs only for photos





AUDIENCE

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Know your audience

► Persona

- Age
- Gender
- Education
- Income
- Race
- Religion
- Political orientation
- etc.



Know your audience

►Role

- Analyst
- Executive
- Customer
- Technical
- Business
- Peers
- Decision Makers
- etc.



Know your audience

►Level of Subject Matter Expertise

- Novice
- User
- Expert





PRESENTATION

METIS

“

If I had more time I would have
written a shorter letter

”

WINSTON CHURCHILL



Speaking

- Vary sentence length
- Modulate
- Speak slowly – pause often
- Speak loud and clear
- Do not be condescending
- Be energetic



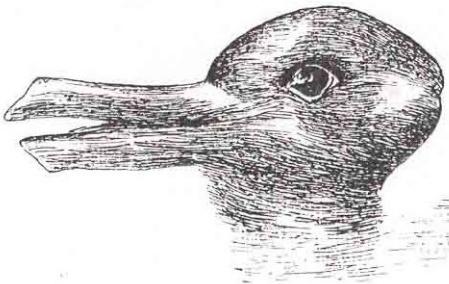
Delivery

- Know your stuff
- Look at the audience
- Do not read from your slides
- Rehearse
- Don't go over your allotted time
- Avoid verbal tics (ums, ahs)



Avoid Ambiguity

Duck or Rabbit?



Which way to Kendall Sq.?





Keep it positive

Storytelling

- Have 1 story (1-3 takeaways)
- Assume you are pitching your project to us
- We do not need all the details



Motivation

The best stats you've ever seen (20 mins)

Hans Rosling





THANK YOU!
