

# PRESENTATION TIPS

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# Agenda

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

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# CONTENT

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METIS

A close-up, low-angle shot of several film reels stacked together. The reels are made of metal and have numerous circular holes along their edges. The lighting is dramatic, with strong highlights and shadows, creating a metallic and somewhat industrial feel.

Most of your work will end  
in the cutting room floor

# What to include?

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- Introduction
  - 1 slide
  - Motivation, objectives and goals

# What to include?

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



# What to include?

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- Introduction
- Methodology
- Results
- 1-2 slides
- ROC Curve, Accuracy, \$ Saved, Adj. R<sup>2</sup>, MSE

# What to include?

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



# What to include?

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



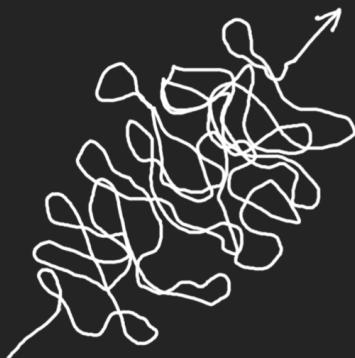
# What to include?

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

# What to include?

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Work Performed

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# SLIDES

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METIS



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

Antoine de Saint-Exupéry

$\frac{1}{2m} \frac{d^2\psi}{dx^2} + V\psi = E\psi$     $\Psi = e^{-\frac{i}{\hbar} \int \vec{p} \cdot d\vec{r}}$     $k = \frac{\omega}{4\pi \epsilon_0 \epsilon_r}$     $V_k = \sqrt{k \frac{M_e}{R_e}} \vec{F}_m = \vec{B} I \ell = \frac{\mu_1 I_1 I_2}{2\pi d} \ell$   
 $E_{ef} = \frac{U_m}{E_e} E = \hbar \omega$     $E = \frac{\hbar^2 k^2}{r^2} U = \frac{W_{AB}}{E_e} = \frac{|E_{PA} - E_{PB}|}{E_e}$     $X_L = \frac{U_m}{I_m} = \omega L = 2\pi f L$     $F_g = \frac{m_1 m_2}{r^2} g$   
 $\vec{B} = \mu_0 \frac{NI}{\sqrt{2}} \vec{V} = \frac{m \vec{h}}{2\pi r m_e}$     $\Phi_E = \frac{E_e}{\mu_0} = k \frac{\Phi}{r^2} \Phi$     $m = N \cdot m_0 = \frac{Q}{N_A} \frac{M_m}{M_e}$     $R_m = \frac{C}{T} k = \pm \sqrt{\frac{2m}{\hbar^2} (E - V_0)}$   
 $K = \frac{P^2}{2m} m_0 = \frac{M_m}{N_A} = \frac{M_r \cdot 10^{-3}}{N_A}$     $\ell_t = \ell_0 (1 + d\Delta t)$     $I = \frac{U_e}{R + R_i} 2^{S \frac{\sin \alpha}{\sin \beta} - \frac{a/L}{a/L} - \frac{t_g \tau'}{t_g \tau}} = \frac{d}{f} \omega = 2\pi f$   
 $\lambda = \frac{\hbar}{\sqrt{2e U m_e}}$     $R = \rho \frac{l}{S}$     $E = mc^2$     $\frac{\sin \alpha}{\sin \beta} = \frac{v_1}{v_2} = \frac{w_2}{w_1}$     $V = \frac{1}{\sqrt{\epsilon_r \mu_r}} = \frac{C}{\sqrt{\epsilon_r \mu_r}}$   
 $f_0 = \frac{1}{2\pi} \sqrt{\frac{g}{\epsilon}} \quad \Psi_{0x} = \sqrt{\frac{2}{L}} \sin \frac{n\pi x}{L}$     $E = \frac{1}{2} \hbar \sqrt{k/m}$     $\beta = \frac{\Delta I_c}{\Delta I_B} \quad \phi_e = \frac{\Delta E}{\Delta t} \frac{m_1}{x} + \frac{m_2}{x'} = \frac{m_2 - m_1}{n}$   
 $\oint \vec{B} d\vec{l} = \mu_0 \iint \vec{J} d\vec{S}$     $\vec{S} = \frac{1}{\mu_0} (\vec{E} \times \vec{B})$     $E_k = \frac{\hbar^2}{8mL^2} \frac{h^2}{n^2}$     $\oint \vec{D} d\vec{S} = Q$   
 $C(s)$     $V_k = \sqrt{\frac{3kT}{m_0}} = \sqrt{\frac{3kTN_A}{M_m}} = \sqrt{\frac{3R_m T}{M_r \cdot 10^{-3}}}$     $E = \frac{\hbar k^2}{2m} l$     $P_C = \frac{1 \text{ AU}}{r}$     $S = \frac{U}{I} F_V = \oint \frac{W_2}{R} = U_e I t$   
 $\gamma = \frac{\ln 2}{T} \quad F_h = S h \rho g$     $f_0 = \frac{1}{2\pi \sqrt{P_L}} \quad \sigma = \frac{Q}{S_T^2}$     $M = \vec{F} d \cos \alpha$     $\frac{F_h}{R}$   
 $\left(\frac{E_e}{-}\right) = \frac{2 \cos \vartheta_1 \cos \vartheta_2}{T} \quad \star$





# Reading is a Priority

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Read the color of the words as fast as you can

# Stroop Effect

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BLUE

GREEN

YELLOW

PINK

RED

ORANGE

GREY

BLACK

PURPLE

WHITE

BROWN

BLACK



# Reading is a Priority

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# Bad Slide

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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

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200 words / minute

# Avoid Unnecessary Animations

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# Better

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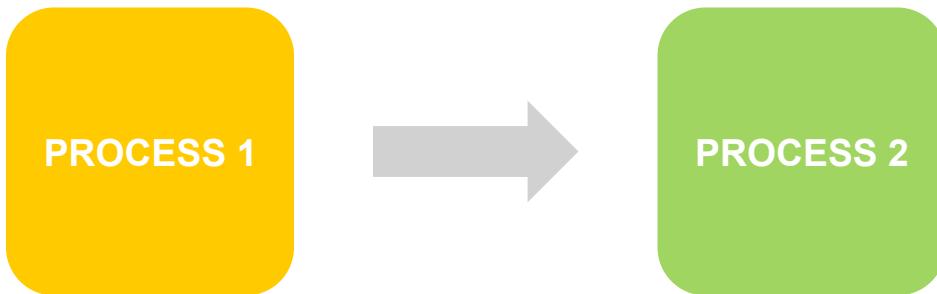


PROCESS 1



# Better

---





# Better

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# Align Objects

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“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

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

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# TEXT

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METIS

# Font Size

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40 point

30 point

20 point

10 point



# Font Types

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## Serif Font

Serif

Thick and thin strokes

Thin

Times

## Sans-Serif Font

Plain

Strokes have even width

Thin

Arial

# Fonts can emphasize

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SLOW

*FAST*

*SLOW*

**FAST**

# Fonts can emphasize

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# Alignment

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**METIS**

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

**METIS**

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

# Contrast

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YELLOW TEXT

BLUE TEXT

YELLOW TEXT

BLUE TEXT



# Avoid Gradients

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THE TEXT CANNOT BE EASILY READ ACROSS ALL COLORS



# Text Summary

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

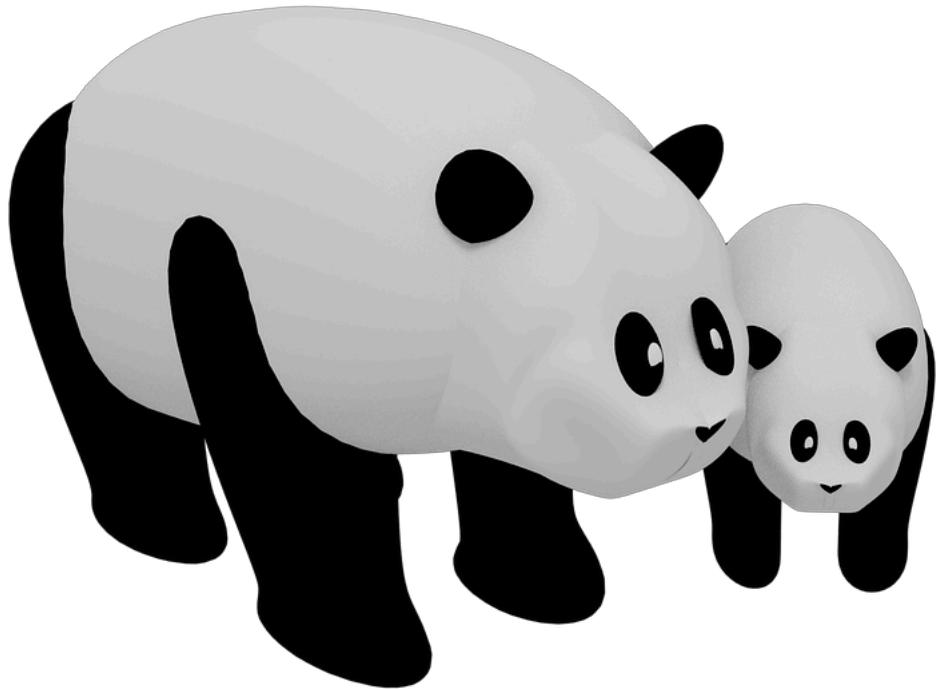
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# IMAGES

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METIS

# PANDA BEAR



# PANDA BEAR



# Images Can Help Emphasize

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- Strength
- Knowledge
- Kindness



# Images Can Help Emphasize

---

Strength



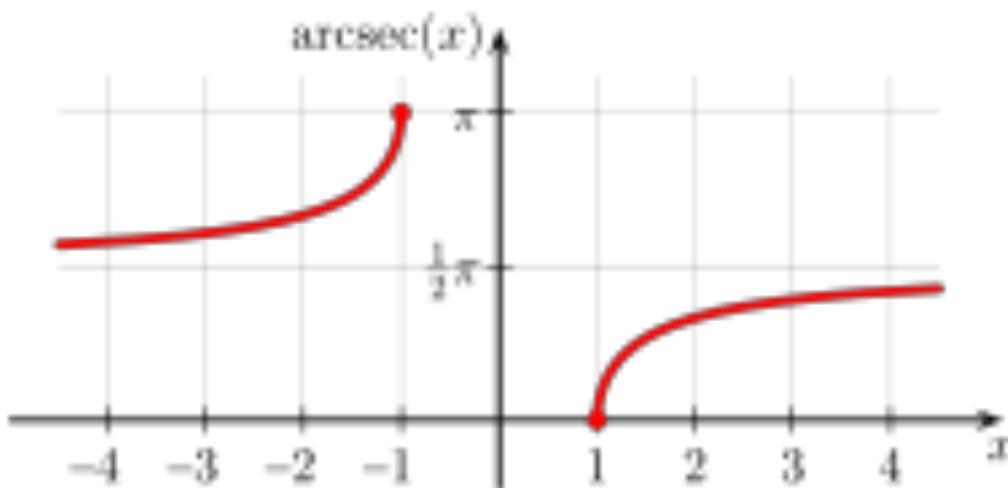
Knowledge



Kindness



# AVOID LOW RESOLUTION



# AVOID LOW RESOLUTION



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

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

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# AUDIENCE

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METIS



# Know your audience

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## Persona

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



# Know your audience

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## Role

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



# Know your audience

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## Level of Subject Matter Expertise

- Novice
- User
- Expert

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# PRESENTATION

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METIS



# Succinct

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

Winston Churchill





# Speaking

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

# Delivery

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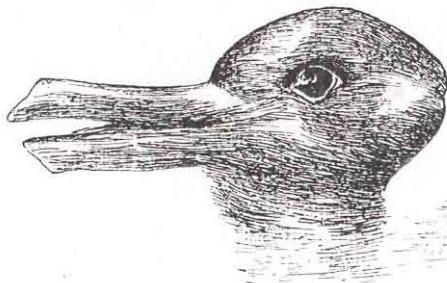
- Know your stuff
- Look at the audience
- Do not read from your slides
- Rehearse
- Don't go over your allotted time
- Avoid verbal tics (ums, ahs)

# Avoid Ambiguity

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Duck or Rabbit?





# Avoid Ambiguity

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Which way to Kendall Sq.?





Keep it positive



# Storytelling

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



# Motivation

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

Hans Rosling

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# QUESTIONS?

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