regulate...
pfunk error

Interactive Visualization
Fast & Accurate
Inaccurate but perceptually accurate

Naïve Approach

SELECT avg(sales) GROUP BY month

ERROR:
Current Avg 0.1
CONF: 99%

Wrong Wasted Work
Context Dependent

How to express?

\[
P(\text{true values} \mid \text{context}) = \varepsilon
\]

\[
P( 80 \mid \text{barchart, height} ) = \pm 5
\]

\[
P( 30 \mid \text{barchart, height} ) = \pm 2
\]

\[
P( 80 \mid \text{barchart, color, JET} ) = \pm 30
\]

\[
P( \text{val} \mid \text{chart type, ...} )
\]

\[
P( \text{val} \mid \text{judgment task, ...} )
\]

\[
P( \text{val} \mid \text{fatigue, ...} )
\]

Estimate the height of the middle bar as a percentage of the total chart height.
est. value \in real value \pm P(real value)

2 Direction
Extending perceptual functions
Data collection tools

Univariate
Height of middle bar

Bivariate
Relative height of the two bars

N-variate
Overall trend of the bars

Animated
Trend of middle bar throughout animation
Bivariate

Wins
for each class of
pfunks

Open Questions

What judgment task?
Are simple Contexts sufficient?
More than for performance?
eugenewu.net

the pfunk era