CS 171: Visualization

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To convey information through visual representations
Why?
Information Explosion
The Industrial Revolution of Data

Joe Hellerstein, UC Berkeley
“It is things that make us smart.”

Donald Norman
Visualization

• Helps us think
• Reduces load on working memory
• Offloads cognition
• Uses the power of human perception
CS 171 Goals

• Principles of effective visualizations
• Gathering data (Python)
• Implementing interactive visualizations (Processing)
• Programming homework and a final project
Jason Gao
Trends in Graduate Admissions

Home State

GPA and GRE Score Averages

Top Undergraduate Universities

UC Los Angeles
UC San Diego
UC Davis
UC Berkeley
MIT
Cornell Univ
Univ Of Washington
Harvard Univ
Univ of Wisconsin-Madison
UC Santa Cruz
Cal Tech
Brown Univ
UC Santa Barbara
Princeton Univ
Stanford Univ

Top Faculty Choices

Smith
Miller
Thorner
Rine
Martin
Eisen
Collins
Firestone
Raulet
Luo
Alber
Doudna
Portnoy
Zhou
Berger
Xiao He

Venkatesh N Murthy
Room: BL 2065
Synaptic circuits and experience-dependent plasticity
• Data and Image Models
• Visual Perception
• Cognitive Principles
• Interaction Techniques
• Color Encoding
• Visualization Software Design
• Designing 2D Graphs
• Maps & Google Earth
• Trees and Networks
• Higher-dimensional Data
• Text Visualization
• Images and Video
• Scientific Visualization
• Life Science Visualization
• Visualization & The Arts