• visualization & visual analytics: when human in the loop needs details about data
  – exploratory data analysis
  – presentation of known results
  – interplay with automation
  • refining model, trustbuilding/monitoring, mixed-initiative
• angles of attack:
  Visualization & visual analytics — when human in the loop needs details about data
  – exploratory data analysis
  – presentation of known results
  – interplay with automation
  • refining model, trustbuilding/monitoring, mixed-initiative

  Problems: Systems, journalism, genomics…
  – opportunistic collaborations across many domains
    – intensive requirements analysis, iteratively deploy & refine prototypes

  Techniques: Dimensionality reduction, graph drawing
  – algorithmic scalability: computational benchmarks
  – perceptual suitability: controlled experiments w/ human subjects

  Glimmer, QSNE
  TopoLayout, TreeJuxtaposer, GrouseFlocks, TugGraph
  Guidance on DR & scatterplot choices
  Search set model of path tracing

  LiveRAC: systems
  SessionViewer: web log analysis (Google)
  MulteeSum, Pathline
  Source: Human
  Destination: Lizard
  chr1
  chr2
  chr3
  chr4
  chr5
  chr6
  chr7
  chr8
  chr9
  chr10
  chr11
  chr12
  chr13
  chr14
  chr15
  chr16
  chr17
  chr18
  chr19
  chr20
  chr21
  chr22
  chrX
  chrY
  chr3
  chr1
  chr2
  chr3
  chr4
  chr5
  chr6
  chr7

  MizBee, Variant View

  Opportunistic collaborations across many domains
  – intensive requirements analysis, iteratively deploy & refine prototypes
  (Broad Inst)
  (BC Cancer)

  (AT&T Research)
  (Mobify)
  (Assoc Press)
  (Google)