InfoVis
Group Intro

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Grad Orientation CS Idol
5 Sep 2023

http://www.cs.ubc.ca/~tmm/talks.html#gradOrient23
Angles of attack
Angles of attack

technique-driven work
Angles of attack

technique-driven work

problem-driven work
Angles of attack

- technique-driven work
- problem-driven work
- evaluation
Angles of attack

technique-driven work

problem-driven work

theoretical foundations

evaluation
Angles of attack

technique-driven work

problem-driven work

theoretical foundations

evaluation

quant, qual, mixed
Technique-driven: Graph/tree drawing

- graph layouts
- graph metrics
- current:
  - Spinospectrum visual encoding & data abstractions (Matt Oddo)

Zipeng Liu
Shing Hei Zhan

Aggregated Dendrograms
https://youtu.be/2SLcz7KNLJw
Technique-driven: Dimensionality reduction

Stephen Ingram

Glimmer

Glint

DimStiller

QSNE
Technique-driven: Recommenders

Anamaria Crisan

Michael Oppermann
Robert Kincaid (Tableau)

https://youtu.be/SRAWFr4tBjA
https://youtu.be/7-7v4m-1bVY
VizCommender
VizSnippets

GEViTRec

Data Recon
Curation of ML output

Zipeng Liu

Jürgen Bernard

Yang Wang (Uber/Facebook)

Anamaria Crisan

Adjutant

Matt Brehmer

Johanna Fulda

TimeLineCurator

https://vimeo.com/123246662

https://youtu.be/sQMF50aNtKI

https://vimeo.com/123246662
Problem-driven: design studies

• log & provenance data, clickstreams
  – current: prov for intrusion detection & program comprehension
    (Francis Nguyen)

• genomics & medicine
  – current: personal health stories
    (Ryan Smith)

• sustainability: energy, fisheries

• data journalism

• many others: always opportunistic!
  – current: deep time museum exhibit
    (Mara Solen)
Theoretical foundations: Models & methods

- Strategy Pitfalls
  - What I Did Over My Summer
  - Least Publishable Unit
  - Dense As Plutonium
  - Bad Slice and Dice

Papers Process & Pitfalls

**Domain**
- abstraction
- idiom
- algorithm

**Nested Model**

- Design Study Methodology

**Goals2Tasks**

- Heidi Lam (Tableau)
- Melanie Tory (Tableau)
- Anamaria Crisan

**Data-First Design Studies**

- Michael Sedlmair
- Miriah Meyer
- Michael Oppermann

**Regulatory & Organizational Constraints**

- Heidi Lam
- Melanie Tory
- Anamaria Crisan
Theoretical foundations: Typologies

Abstract Tasks

Matt Brehmer

Bongshin Lee
(Microsoft)

Benjamin Bach
(Microsoft)

Nathalie Henry-Riche
(Microsoft)

Timelines Revisited
timelinesrevisited.github.io/

GEViT: Genomic Epidemiology Viz Typology

Ana Crisan

Steve Kasica

TableScraps

timelinesrevisited.github.io/
InfoVis Group

• papers, videos, software, talks, courses
  http://www.cs.ubc.ca/group/infovis
  http://www.cs.ubc.ca/~tmm

• no grad course (547) until Sep 2025
  • ugrad course 447, Sep 2023
  • sabbatical, Jan-Dec 2024
  • ugrad course 447, Jan 2025

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