SAGE3 Deployment
Introduction

- Large consumer displays are as cheap as ever
  - 86” for $2,000
- PC: decent gaming PC ~ $2,000
  - Dell XPS Alienware gaming PC
  - Intel i9 - 64GB RAM
  - Nvidia RTX 4070
  - 2TB SSD
- 4K Laser projector ~ $4,000
November 2023

LG QNED80 Series 86-Inch Class QNED Mini LED Smart TV
4K Processor Smart Flat Screen TV for Gaming with Magic Remote AI-Powered
86QNED80URA, 2023 with Alexa Built-in, Black

Visit the LG Store
4.3 stars 72 ratings
33 answered questions

-5% $1,896.99
List Price: $1,996.99

Pay $1,896.99 $1,874.08 after using available Amazon Visa rewards points.

Delivery & Support
Select to learn more
Audio Video Light

- **Audio is critical**
  - Personal: microphone as close as possible to mouth
  - Group meeting
    - Room-scale microphone is expensive but worth it
    - Shure, Sennheiser, ...
  - Audio treatment when possible: carpet, wall, ...

- **Video**
  - Good wide webcam, PTZ for room meeting
  - Many cameras have USB-C mode

- **Light**
  - more
Setups

- **Personal**
  - Laptop
  - One large external monitor/TV
  - USB webcam on a fixed stand
  - USB microphone as close as possible
  - LED light panels

- **Office**
  - Up to 10 people
  - 2x 4K TVs and one PC
  - Tabletop mic
  - Webcam or conference-room AV
  - Shared keyboard-mouse
Classroom

- Commercial grade display still expensive
  - But worth in the long run
  - Can be used as ‘projector’ with single input

- LCD mosaic
  - Widely available

- Direct View LED
  - No seam and can be large, now in 4K
  - Heat and expensive

- Think about the screen in term of 4K tiles

- Touch still hard/expensive

- Interaction: shared keyboard/mouse, ...

- > $100K
Software

- To test the software
  - Public servers in Hawaii and Chicago
  - Get the client: https://sage3.sagecommons.org/

- Free client
  - Electron-based app

- Deploy your own server
  - On premise, on your hardware
  - In cloud, get a VM from a provider
    - Commercial clouds
    - Cyberinfrastructure such as JetStream
      - https://jetstream-cloud.org
Install your Own Server

- https://sage-3.github.io/docs/Server-Deployment
- Docker based
  - Requirements: docker and SSL certificates
- Web server
  - Node JS server, support collaboration and assets
- In-memory database
  - REDIS – fast data sharing for collaboration
- Jupyter server
  - Data science notebook -- execute SAGECells
- Python Gateway
  - To Jupyter and AI services – proxy for Jupyter and AI models