



CSE211: Web Programming

ASSIGNMENT: #2 Performance Comparison

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Fall 2025-26

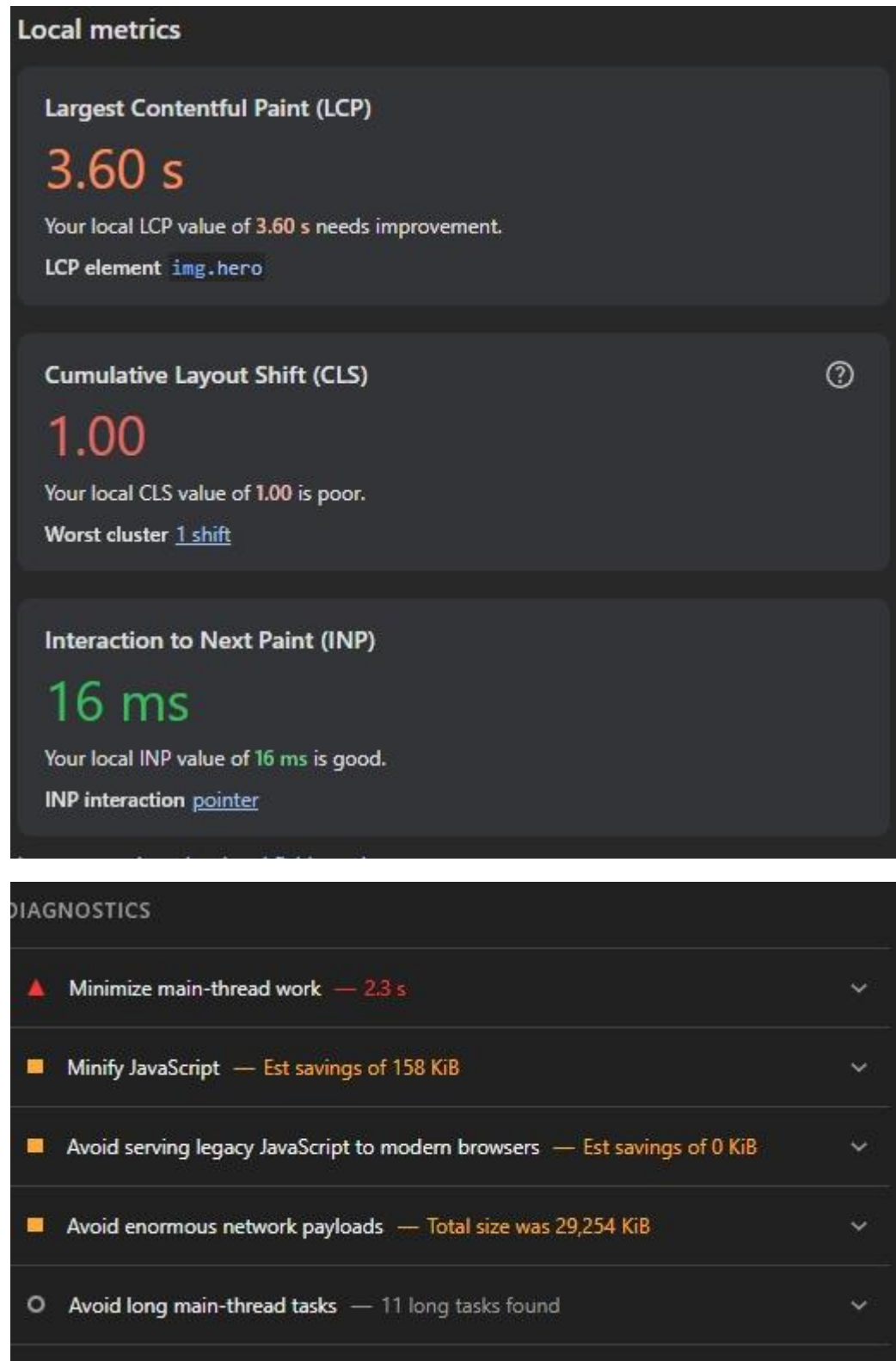
Supervised By: Dr. Samy Ghoniemy

Metrics	Youm7	Amazon	ASU
LCP	0.51s	1.59s	3.60s (bad)
CLS	0.08	0.0.22 (bad)	1.00 (bad)
INP	0ms	24ms	16ms
Performance	Excellent	Good	Poor

Best Performance:

Youm7 has the best performance with excellent scores across all metrics, while Arizona State University has the worst performance with critical issues in both loading speed and layout stability. Amazon sits in the middle with good loading times but some layout shift problems.

Arizona State University - Worst Performance

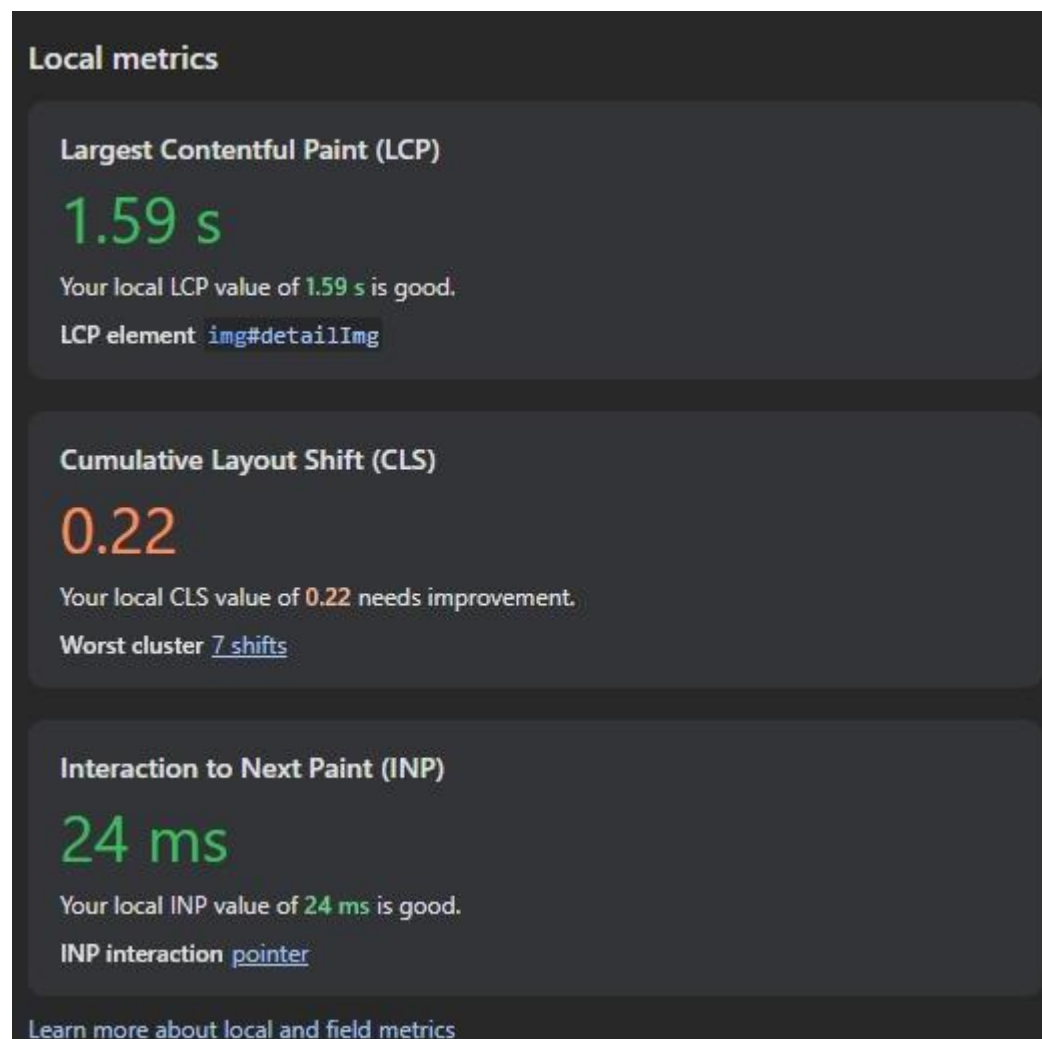


Main Issues: Extremely slow main image (3.60s) and severe layout jumps (CLS 1.00)

Fixes:

- Add width/height to hero image to stop layout jumps
- Compress and optimize the large hero image
- Use WebP format for faster loading
- Implement lazy loading for other images

Amazon - Middle Performance



DIAGNOSTICS		
▲	Minimize main-thread work — 24.1 s	▼
▲	Reduce JavaScript execution time — 5.6 s	▼
■	Minify JavaScript — Est savings of 58 KiB	▼
■	Use HTTP/2 — 2 requests not served via HTTP/2	▼
■	Avoid serving legacy JavaScript to modern browsers — Est savings of 19 KiB	▼
■	Reduce unused JavaScript — Est savings of 518 KiB	▼
■	Avoid enormous network payloads — Total size was 21,597 KiB	▼
○	Avoid long main-thread tasks — 12 long tasks found	▼

Main Issues: Layout instability (CLS 0.22) causing content to shift

Fixes:

- Reserve space for all product images
- Add explicit dimensions to image containers
- Preload critical product images
- Avoid dynamic content insertion above existing content

Youm7 - Best Performance

Local metrics

Largest Contentful Paint (LCP)

0.51 s

Your local LCP value of **0.51 s** is good.

LCP element [img](#)

Cumulative Layout Shift (CLS)

0.08

Your local CLS value of **0.08** is good.

Worst cluster [1 shift](#)

Interaction to Next Paint (INP)

0 ms

Your local INP value of **0 ms** is good.

INP interaction [keyboard](#)

DIAGNOSTICS

- ▲ Reduce JavaScript execution time — 1.3 s
- ▲ Minimize main-thread work — 5.5 s
- Minify CSS — Est savings of 11 KiB
- Minify JavaScript — Est savings of 116 KiB
- Avoid serving legacy JavaScript to modern browsers
- Avoid long main-thread tasks — 6 long tasks found
- User Timing marks and measures — 3 user timings

Main Issues: None significant - all metrics are excellent

Fixes:

- Continue current optimization practices
- Monitor for any new third-party scripts
- Maintain image compression standards
- Regular performance checks

THANK YOU