Lucas Morgan Software Engineer

📍 Dallas, TX   ✉ enviraldesign@gmail.com   📞 817-793-7134   ↗ enviral-design.com

○ EnviralDesign   in lucasmorgan

EXPERIENCE

Founder & Owner, *Enviral Design* ↗   2014 – present
Created GeoPix ↗ , an open source lighting control & previz software made for large-scale   Dallas, TX
lighting design, stage production, and architectural installation.

- Developed GPU-accelerated infrastructure that delivers 250,000+ pixels worth of real-time
  content @ 60 fps in a single threaded scenario.
- Architected a workflow that unifies driving video, LED & DMX fixtures with video.
- Built UI system that instantly generates 100+ widgets via HTML/CSS/JS integration.
- Maintenance of 66,000+ lines of Python application code.
- Management of website, marketing, video tutorials, and social communities.

Senior Developer, *Imaginex* ↗   2016 – 2018
Led optimization efforts for Crescent Sun ↗ , a video mapping performance software.   Dallas, TX

- Overhauled the PanelFX system to achieve 200+ panels @ 60 fps.
- Rebuilt back-end subsystems for scalability and reduced memory footprint.
- Optimized panel mapper front-end tool for a more intuitive user experience.

Lead Environment Artist, *HitPoint Studios* ↗   2011 – 2014
Lead Environment Artist on Adera ↗ , built & managed render farm for 8-10x rendering gains.   Hatfield, MA
Responsible for 3D environments, shading, lighting, rendering, compositing.

3D Artist, *LSI* ↗   2010 – 2011
Responsible for 3D environments, shading, lighting, rendering, compositing, motion capture.   Houston, TX

SKILLS

Graphics Programming
OpenGL, GLSL, light culling algorithms, ray marching, 3D lighting & shading, optimization

System Architecture
Desktop applications, web render UI, scalability, optimization, networking, CMS

Web Technologies
HTML, CSS, JS, PHP, WebGL, UI/UX interactivity, GitHub

Application Development
Back-end, front-end, TouchDesigner, Python, UI/UX, C++ plugins, API implementation, OOP

3D Design
Visual programming, modeling, lighting, rendering, generative art, 3D printing

Embedded Systems
Arduino, esp8266, IoT, ultra wide-band, Linux, TCP, addressable LEDs, PCB design

EDUCATION

Bachelor's of Computer Animation, *Full Sail University* ↗   2007 – 2009
                                                                                     Winter Park, Florida