

# Sam Luedtke

luedtkesj@gmail.com

608-576-5978

<https://www.linkedin.com/in/sam-luedtke-a22501146>

## TECHNICAL SKILLS

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- **Proficient:** Python, Maya API, C++, C#, Unity, UI/UX Development
- **Exposure:** Premiere, Resolve, Unreal, PyTorch

## WORK EXPERIENCE

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[Cyclomedia Technology](#), Madison, WI

01/2021 - Present

3D Software Developer

Co-lead developer for Insights360 geospatial visualization software

- Partnered with MLOps annotation artists to design and maintain tools for computer vision image dataset creation
- Built a PyTorch + PySide2 training app, enabling non-programmers to train custom computer vision models from annotated images
- Developed an AI-assisted image selection tool, reducing manual effort and improving accuracy in complex real-world cyclorama datasets
- Implemented asynchronous content pipelines that streamlined asset production while maintaining UI responsiveness
- Architected a 3D geometry pipeline in Unity with compute shaders + multithreading, improving load and render performance by 80%
- Designed scalable, user-friendly UI systems optimized for complex workflows with large datasets
- Developed systems and tools for 3D environment mesh reconstruction, enabling rapid prototyping and model generation from small amounts of data

## EDUCATION

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LAWRENCE UNIVERSITY

09/2016 - 06/2020

- Bachelor's: Computer Science, Film Studies | Minor: Mathematics

## INDEPENDENT DEVELOPMENT PROJECTS

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### Maya Python Tools

- **Character Picker Window** – Custom UI for managing and selecting character libraries, improving animator efficiency when initiating character animation from any angle.
- **Playblaster Tool** – Automated playblast + conversion pipeline using ffmpeg, enabling quick review cycles and standardized delivery formats.
- Developed using Maya API, PySide2 and ffmpeg

### Reverb - VR Rhythm Shooter, (<https://lootkey.itch.io/reverb>)

- Procedurally generated rhythm shooter game for PC that uses spectrum analysis to create levels from audio files
- Built responsive haptics and synchronized animations, creating immersive player experiences.