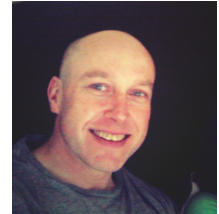


# Lindsay Kay - 3D Web Developer

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## Personal Information

Location Berlin, Germany  
Email [lindsay.kay@xeolabs.com](mailto:lindsay.kay@xeolabs.com)  
Portfolio [xeolabs.com/portfolio/](http://xeolabs.com/portfolio/)  
GitHub [github.com/xeolabs](http://github.com/xeolabs)  
LinkedIn [linkedin.com/in/lindsaystanleykay/](http://linkedin.com/in/lindsaystanleykay/)  
Twitter [@xeolabs](https://twitter.com/xeolabs)



## Summary

Freelance 3D graphics software engineer providing Web-based solutions for BIM, CAD, medicine and architecture; open source contributor.

## Recent Work Experience

- 2017–2018 **WebGL Developer** *Move to BIM*, Lyon, France. Built the 3D viewer within the BIMData IFC visualization platform.
  - o Writeup: [xeolabs.com/portfolio/bimdata](http://xeolabs.com/portfolio/bimdata)
- 2018–2018 **WebGL Developer** *SolidComponents*, Halmstad, Sweden. Built the 3D viewer within the SolidComponents™ online CAD product catalog.
- 2010–2018 **WebGL Developer** *BioDigital Systems*, New York, New York. Built the core 3D rendering technology within the BioDigital Human.
  - o Delivering high-detail, web-based medical visualizations
  - o Lead 3D development (2010-2015)
  - o Over three million subscribed users
  - o Won the 2015 Webby Award for best Healthcare Website
  - o Won the 2013 SXSW Classic Interactive Award
  - o Writeup: [xeolabs.com/portfolio/biodigital-human](http://xeolabs.com/portfolio/biodigital-human)
- 2018–2018 **WebGL Developer** *TNO*, Amsterdam, Netherlands. Contributed to BIMSurfer V3, a WebGL2-based 3D viewer that renders massive tiled models streamed from BIMServer.
- 2015–2017 **WebGL Developer** *TNO*, Amsterdam, Netherlands. Built the 3D viewer within BIMSurfer V2, an open source tool for Web-based visualization and evaluation of Building Information Models (BIM).
- 2016–2016 **WebGL Developer** *zSpace*, Sunnyville, CA. Created WebGL demos for the zSpace 300 mixed-reality 3D display.
  - o Demonstrated at GDC 2017
  - o Writeup: [xeolabs.com/portfolio/xeogl-and-zspace](http://xeolabs.com/portfolio/xeogl-and-zspace)

## Selected Projects

- 2013–2013 **Smile Train** - A WebGL-based virtual surgery simulator providing surgeons in 1100 hospitals in 150 countries with next generation surgical training technology for learning surgical techniques in cleft lip and palate repair.

- o Won NTSA award for Outstanding Achievement in Modeling & Simulation
- o smiletrain.org
- 2015–2017 **BIMSurfer** - A WebGL-based 3D viewer for BIMServer
  - o bimsurfer.org
- 2015–present **xeogl** - An open source WebGL-based 3D visualization library for BIM and engineering
  - o Powers BIMSurfer, BIMData and SolidComponents
  - o xeogl.org
- 2007–2016 **SceneJS** - An open source WebGL-based 3D scene graph library
  - o Powers the BioDigital Human
  - o scenejs.org

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## Talks & Publications

- 2015 **The xeogl & SceneJS WebGL Libraries**, *Berlin WebGL Meetup 2015*
- 2012 **SceneJS - A WebGL-Based Scene Graph Engine**, *OpenGL Insights 2012*
  - o Download: [xeolabs.com/pdfs/OpenGLInsights.pdf](http://xeolabs.com/pdfs/OpenGLInsights.pdf)
- 2010 **SceneJS WebGL Library**, *WebGL Camp #1, Stanford University, 2010*

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## Education

- 2000–2004 **BSc, Computer Science**, University of Canterbury, Christchurch, New Zealand
  - o Course tutor for software engineering and algorithms

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## Skills & Background Knowledge

### Technical skills (*recent*)

- 3D graphics algorithms
- 3D application, engine and API design
- WebGL (1 & 2), OpenGL, glTF, xeogl
- Medical and architectural visualization, BIM, BIMServer, BIMSurfer
- C, C++, Java, JavaScript/ECMA6, HTML, CSS, Git, Linux, Open Source
- Remote freelancing, technical writing