

# Richard Eakin, MSc

Creative Software Programmer

## CONTACT

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## EDUCATION

### Master in Sound and Music Computing

Universitat Pompeu Fabra  
Barcelona, Spain | 2009

### Major in Music, Computing and the Arts

University of California, San Diego  
San Diego, CA | 2007

## SKILLS

- Modern C++
- OpenGL, Vulkan, DirectX 11
- Audio and DSP
- Unreal Engine Development
- Human Computer Interaction
- Procedural Graphics
- Ray Tracing / SDF Ray Marching
- UI Programming
- Physics Programming
- Python and Node Scripting
- Application Architecture

## PERSONAL STATEMENT

Experienced team leader and out-of-the-box problem solver seeks collaboration with innovative team motivated to develop cutting edge integration of interactive graphics applications and tools that people are excited to use for creative experiences. I am primarily interested in exploring ways to push the boundaries of how we structure our tools to promote creative workflows the lead to novel ideas and experiences.

## EXPERIENCE

### Senior Programmer

Framestore, Contract | New York, New York | Feb. 2020 - present

Developed real-time software solutions for immersive installations using both Unreal Engine and C++ / OpenGL / Compute. Key work includes:

- Body tracking software with gesture recognition that scales to N LIDAR cameras
- Mesh to SDF Volume transformation for rendering effects
- Designed and managed infrastructure for networked graphics clusters backed with extensive admin tools.

### Creative Software Programmer

Freelance | New York, New York | 2014 - 2020

Both leading tech development and working with larger teams, completed a wide range of software installations that took place in North America, Europe, and Asia. Designed application architecture for robust systems that spanned multiple computers and immersive displays, many of which utilized human input from devices like touch panels and LiDAR depth cameras.

- Clients include: HBO, Intel, Samsung, Porsche, Twitter, Time Warner Media, Magic Leap, SK-II, La Mer By the Sea
- Agencies: The Barbarian Group, Red Paper Heart, Rare Volume, Antfood, Potion Design, Patten Studio

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## CONFERENCES

### 12th International Conference on Digital Audio Effects (DaFX09)

September 2009, Como, Italy

Paper: Eakin, R.T., Serra, X, "SMSPD, LIBSMS and a Real-Time SMS Instrument"

### National McNair Research Conference

August 2006, Berkeley, California

"Manipulating Sinusoidal Models in Real-Time"

### UCSD Undergraduate Research Symposium

July 2006, La Jolla California, USA

"Research towards the use of Sound Descriptors within a Real-time Music Environment"

## INTERESTS

Music, Visual Arts, Travel, Rock Climbing, Outdoors, Cooking, Gardening, Fishing

## LANGUAGES

English | Fluent

Portuguese | Conversational

Spanish | Conversational

## EXPERIENCE (CONTINUED)

### Interactive Developer

The Barbarian Group | New York, New York | 2012 - 2014

Developed client software containing multi-screen setups and high-definition interactive displays for permanent, real-time installations.. Built applications for clients seeking more interactive routes in advertising. Core development on the [Cinder C++ framework](#), completing a rewrite of the cinder::audio namespace and a redesign of the cross-platform application layer, along with community relations management.

Samsung CenterStage project : <https://vimeo.com/99379887>

### Mobile iOS Developer

Fairfax Digital | Sydney, Australia | 2010 - 2012

Developed 'The SMH for iPad' and 'The Age for iPad', hybrid iOS + HTML apps. Implemented multi-threaded networking, database storage, and UI development.

- Winner of Swipe 2011 "Best iPad Application" and 2011 Australian Mobile Awards
- App landing page: [www.smh.com.au/interactive/ipad-app-landing](http://www.smh.com.au/interactive/ipad-app-landing)

### Software Engineer

Prezi.com | Budapest, Hungary | 2009 - 2010

Programmed web-based presentation software based on the concept of a zooming canvas. Provided end-users with technical support.

## REFERENCES

### Andrew Bell Technical Director

Rare Volume  
andrewfb@rarevolume.com  
[www.linkedin.com/in/andrewfb](http://www.linkedin.com/in/andrewfb)

### Lucas Vickers Technical Program Manager, Site Reliability Engineer

Google  
lucasvickers@gmail.com  
[www.linkedin.com/in/lucasvickers](http://www.linkedin.com/in/lucasvickers)

### James Patten Director & Founder

Patten Studio  
james@pattenstudio.com  
[www.linkedin.com/in/james-patten-b361972](http://www.linkedin.com/in/james-patten-b361972)

### Daniel Scheibel Technical Director / Co-Founder Red Paper Heart

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[www.linkedin.com/in/danielscheibel](http://www.linkedin.com/in/danielscheibel)

