Raphael Matto
Senior Software Engineer and Look Development Artist

I've worked for twenty years as a production engineer and look development artist in highly technical professional environments. I boast strong communication skills, am self-directed, and feel comfortable leading a team.

I am an expert in the development and application of procedural patterning tools for 3D geometry shaders in feature film and television. I also specialize in designing web and network-based pipeline solutions for small and massive multi-site animation studios.

Demo Reel:

For examples of my work while employed by Weta Digital and Blue Sky Studios, view my demo reel on Vimeo:
https://vimeo.com/raphaelmatto/demoreel

References:

Please email me at raphaelmatto@gmail.com for a list of references, or read the recommendations on my LinkedIn profile:
https://www.linkedin.com/in/raphematto/

Work Experience:

Spire Animation Studios, Los Angeles, CA
Senior Pipeline Engineer, 2023

- Built artist tools in Unreal Engine with Blueprints and Python.
- Led effort to adopt Fractal Picture's Shotgrid Toolkit Pipeline and merge the two studios' tech stacks.
- Worked with DevOps to create Kubernetes (k8s)-based micro-services framework behind Okta identity provider and wrote web apps on top of it for Shotgrid and Deadline.
- Built framework for tracking tool adoption and errors, with OpenTelemetry, Signoz, and Sentry.

DreamView / InfiniteWorld, San Francisco, CA
Supervising Pipeline Engineer, 2020-2022

- Integrated Shotgun Toolkit with existing pipeline and asset management tools in nine DCCs via standard and custom code-translation engines.
- Diagnosed pipeline bottlenecks and presented new Shotgun-free architecture for desktop tool distribution platform.
- Built multi-platform QT-based media download and Davinci Resolve-based automation apps for the editorial department.

Walt Disney Imagineering, Glendale, CA
Senior Software Engineer, 2018-2020

- Built fully-documented framework to securely connect existing WDI services, using Docker Compose, Nginx, React/Material-UI, Vue/Veutify, Shotgun/Toolkit, Django, Flask, AWS, and other technologies.
- Built flexible charting plugins for React-based pop-up dialog framework using amCharts and Shotgun.
- Standardized and documented engineering workflows to improve collaboration, based around Confluence, Jira, and GitLab.

Autodesk, San Francisco, CA
Shotgun Pipeline Engineer, 2015-2018

- Consulted with and built tools for Shotgun clients: Industrial Light & Magic (ILM), Electronic Arts, Epic, Activision (Treyarch, Infinity Ward), Microsoft, Jaunt VR, Lytro, Netflix, Warner Bros., Marvel, and many others.
- Developed software products for Shotgun and Shotgun Toolkit related to VR, editorial workflows, and user-defined automation.
- Created thirteen videos—five hours of content—for the Shotgun Developer Training YouTube series.

Floored, Manhattan, NY

Software Developer, 2014

- Wrote cross-platform ftp desktop application using PySide and AWS's S3 boto api.
- Developed and debugged mobile app with the Android SDK, Java, and Intellij.
- Wrote framework for processing pointclouds with Julia from Rhino Python.
- Troubleshooting custom hardware for laser scanning interior spaces.

High 5 Games, Manhattan, NY

Senior Pipeline Engineer, 2014

- Designed art department workflows, built renderfarm around Deadline 6.2.
- Developed Python & ExtendScript tools for Cinema4d, Maya, and Adobe, and integrated them with Shotgun, Perforce, and Jira.
- Wrote documentation, worked with third party developers.

PandaPanther, Manhattan, NY

CG Supervisor, 2012 - 2014

- Built entire pipeline for the back end of CG production; this included tools to manage and review assets and shots in the modeling, look-dev, lighting, compositing, and editorial departments.
- Led lighting team to complete 60 minutes of CG footage for the Skylanders video game franchise.
- Radiance map capture and HDR IBL lighting to match miniatures environments.
- Wrote documentation system and installed and configured Redmine to track artists' tasks and bugs.
- Shader development, look-dev, shot lighting, documentation.

New York University/SCPS, School of Visual Arts (SVA), Filmakademie, Siggraph

Instructor, 2006 - Present

- I teach a class called "Production Studio," which focuses on advanced shading, texturing, and look development techniques in the context of Maya and the rendering applications VRay, Arnold, and Renderman.

Blue Sky Studios, Greenwich, NY

Lead Materials Technical Director, 2010 - 2012

- Sets lead for Ice Age: Continental Drift.
- Lead team meetings and collaborative group efforts to respond to changes in production.
- Wrote a LAMP-based documentation content management system (CMS), and wrote technical documentation for many production-related tools and techniques.

Materials Technical Director, 2004 - 2006

- Developed core pipeline tools with a variety of technologies.
- Wrote material scripts (shaders) to look-dev character assets and environments.

Composite/Render Wrangler, 2003

- Wrote command-line scripts to manage renderfarm.
- Wrote LAMP-based web utilities to analyze renderfarm data and generate statistics.
- Cleanup compositing for final renders.

Weta Digital, Wellington, New Zealand

Shader Writer, 2007 - 2009

- Wrote Renderman shaders and developed MEL-based shader UIs for look-dev artists.
- Painted textures and adjusted shaders to look-dev character assets and environments.
- Wrote LAMP-based asset tracking tools.
- Tracked and fixed bugs in production tools.

Lead Lighter, 2006 - 2007

- Led lighting of sequences.
- Introduced procedural patterning techniques to the Shaders Department.

Feature Film & Game Credits:

Film/game title	Credit
Skylanders	CG Supervisor
Lostopolis	CG Supervisor
Ice Age: Continental Drift	Lead Materials Technical Director
Rio	Senior Materials Technical Director
Avatar	Shader Writer
District 9	Shader Writer
30 Days of Night	Lighter
The Water Horse, Legend of the Deep	Lead Lighter
Fantastic Four: Rise of the Silver Surfer	Lighter
Horton Hears a Who	Materials Technical Director
Ice Age: The Meltdown	Materials Technical Director
Robots	Materials Technical Director

Relevant Technical Skills:

I learn programming languages, APIs, and software applications quickly. Here is a sample of specific technologies I've worked with:

Operating sytems	Years	Software applications	Years	Programming languages	Years
Unix / Linux	20+	Maya/Mental Ray	20+	Sl (Renderman) /	6
Macintosh / OSX	20+	VRay/Arnold/Renderman	10+	Studio++ (Blue Sky's renderer)	6
Windows / PC	20+	Cinema4d	2	Python / PyQt / PySide / Flask / Django	15+
Android	10+	Nuke/Shake/Hiero	10+	Php / MySQL / Codeignitor	15+
IOS	10+	Adobe Creative Suite	20+	MEL (Maya's Embedded Language)	20+
		Mari/Mudbox	7	C/C++ like languages	8
		Perforce/Git/SVN/CVS	15+	Perl	20+
		Shotgun/FTrack	5+	Javascript / ExtendScript / React / Vue	10+
		Deadline/Smedge/Rush	15+	Tcl	2
		Composite/Toxik	2	Ruby / Ruby on Rails	1
		Final Cut Pro/Davinci R.	20+	HTML / CSS	20+

Awards:

- Academy Award for Best Visual Effects, Avatar 2009 (my team at Weta won an Oscar!)
- Visual Effects Society (VES) award nomination for "Best Digitally Created Environment," for The Water Horse

Education:

Date	Institution
2012-2014	*Vermont College of Fine Arts*, MFA creative writing program, poetry
2008	*Victoria University*, creative writing workshops at The International Institute for Modern Letters
2002	*Arizona State University*, MFA creative writing program, fiction
1997-2001	*Skidmore College*, creative writing, BA / Studio Art minor