

# ANTONIO A. EGGERMONT

1169 Market Street Apt 409  
San Francisco, CA 94103

Email: Antonio.Eggermont@post.harvard.edu  
Phone: 617 710-2755

I am a software and systems integrator with experience in the Internet, streaming media, and digital media production industries. My interests are development of backend software frameworks, web services, automation, mobile computing, cloud computing, and infrastructure integration for digital media production and delivery. I enjoy researching emerging technologies and employing holistic analysis to solve problems in a forward-thinking manner.

## TECHNICAL SKILLS

### Software Development:

- Languages: C; Python; JavaScript; Java
- Databases: SQL; MySQL
- Revision control and integration: SVN; GIT  
Hudson; Eclipse; RPM spec files
- Familiarity with shell scripting

### Internet and Mobile Technologies :

- Client/Server Architectures: Apache server;  
Tomcat/J2EE; django; memcached
- Media Content: HTML5; CSS; JQuery; JSON;  
RSS;
- CMS: thePlatform: MPS;MPX

### Digital Media Processing:

- Media Encoding/Transcoding: QuickTime; H.264;  
Flash; MPEG -1; MPEG-2 ; ffmpeg
- Image Processing: Photoshop; ImageMagic;

### Systems Engineering & Integration:

- Virtualization/Cloud Computing: familiarity with  
VMWARE infrastructures; EC2/AWS; RightScale
- Network Protocols: HTTP; TCP/IP; NFS; SSH;  
FTP; DNS; RTSP; RTP;
- Monitoring: NewRelic; Nagios;

### Operating Systems

- Red Hat Enterprise Linux; Fedora; CentOS;  
Macintosh OS X; Windows

## PROFESSIONAL EXPERIENCE

**CBS CORPORATION - CBS Interactive**, San Francisco, CA  
**Operations Engineer / Tools Developer – TV.com**, 2011 - present

Assists in the development and implementation of Web services, tools and processes automation to support a multi tiered, highly trafficked site with 11 million unique visitors each month. Main duties include:

- Assisting in the implementation and integration of front-end applications and components for Web and mobile applications. This includes implementing optimization solutions to improve page loading, Django framework configurations, tools, redirect mechanisms for mobile apps, application integrations with backend Restful services, and configuration of origin servers, load balancers and CDN resources for the publishing of static media assets and live sites.
- Developing content management system tools for the publishing of video on sites and CBS Content Audience Network. This includes development of front-end apps, REST services, and design of API end points and Java clients.
- Developing content automation and acquisition solutions the processing of RSS feeds for high-volume ingestion and trans-coding of video content and metadata from television partners (ABC, HBO, etc) for publishing on public sites. This includes video clips, closed captioned metadata, trans-coding of video, generation of thumbnails and publishing of content to CDNs. Automation includes XML, JSON processing, multithreading programming, caching, and integration and development of front-end apps to manage content feeds.
- Automating and integrating staged environments to enable QA in the building, testing and deployment of software. Tool set includes automation of SVN repositories for the systematic software releases, Hudson integrations, packaging of releases, and deployment of software.
- Assisting in the migration of legacy back-end applications to AWS/RightScale. This includes reverse engineering of back-end and front-end applications, content management systems, API services, optimization of web servers configuration, building of server templates, integration of monitoring solutions to benchmark performance from end-user experiences perspectives and apply introspection to applications code and services.

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**THE WALT DISNEY STUDIOS – ImageMovers Digital, Novato, CA**  
**Assistant Technical Director, 2008 - 2010**

Functioned as a software engineer assisting in the architecting of frameworks to define and optimize production workflows, and extend functionality and integration with applications SDKs. Projects involved developing of applications to extend and implement features for 3D animation, bitmap manipulation, encoding of media, integration of backend schedulers for media rendering, and systems integration of high-performance server enclosures for the rendering of stereoscopic imagery. Main duties included:

- Developing an image proxy plug-in that allows users create, resize, and assign lower/medium/high resolution texture bitmaps to geometry to increase shot scene efficiency and user interaction in 3D space employing 3dsmax and Autodesk Maya SDK.
- Developing a rendering media module for the segmentation of large image plates (4-7K) into image blocks and final image reconstruction in post rendering stages.
- Automating a media render farm management system (320+ nodes/2560 CPUs) which included job submission modules for the rendering of photorealistic image plates, image block segmentation, image reconstruction, and image sequences in H.264 format. Job submission tools accept an input job description, then distributes and load balances the workload amongst 320 server nodes to generate stereoscopic image sequences.
- Implementing dynamic Web interfaces for the monitoring and debugging of production processes. This included implementation of feature apps to extend the functionality of media rendering systems API, and visualization of process and systems performance metrics to provide running time process estimations and task status to end users, resource technical assistants and production executives.

**SONY PICTURES ENTERTAINMENT - Imageworks, Culver City CA**  
**Senior Production Services Technician, March 2008 – June 2008**

Assisted in the technical aspects for the production of the motion picture “Valkyrie”, directed by Bryan Singer. Managed digital image data throughout the production pipeline and participated in the development of tools to automate common tasks to improve and optimize production workflows. Main duties included:

- Developing command line tools in Perl and Python to streamline and automate the flow of data between different application components in production workflows.
- Developing systems provisioning tools for the monitoring of disk resource usage to keep the allocation of data within acceptable disk utilization standards.
- Interfacing with digital, feature production, editorial, I/O, and systems and software departments to streamline technical issues and systems performance degradations.

**HARVARD UNIVERSITY, Cambridge MA**  
**Systems Integrator, Software Engineer, 1999 - 2006**

Developed and integrated a system architecture and frameworks for the delivery of on-demand and live streaming media content for the first on-line distance education program at Harvard University. Content delivery platforms included Real Networks Streaming Media and Windows Media Streaming services. Main duties included:

- Designing and automating a distributed end-to-end multimedia ingestion and processing platform and to automate real-time processing of video, audio, web and streaming media content production cycles. This included the real-time compression and trans-coding of video and audio for multi bit-rate and adaptive bit-rate streaming, color correction, audio enhancements, and synchronization with other multimedia content.
- Developing a content management system for the automation and integration of Web content generators, media content archiving and publishing to Web and video servers, basic non-linear video editing, and metadata generators for the embedding of JavaScript events into video streams utilizing applications API.
- Designing front-end Web interfaces with embedded streaming video and audio controls and synchronized multimedia components for adaptive and multi-bit rate streaming presentations.
- Designing and implementing application Web-based interfaces to provide access to production tools, systems monitoring and video encoding scheduling and live encoding pre-visualization.
- Integrating and configuring server racks for the integration of audio and video equipment, servers, network switches, and data and video networks. This included video multiplexers, video distribution amplifiers, real-time video and audio processing devices, capture boards and switchers.

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## **EDUCATION**

### **Master's of Arts in Media Arts, 2007**

Emerson College, Boston MA

Course work included Video Field Production, Television Studio Production, Computer Animation, Graduate Studies in Film, Advanced Cinematography, Sound for Image, Advanced Studio Recording, and Media Theory and Criticism. Masters project focused on the production of a short original fictional narrative composed by live-action performance captured on high-definition video conveyed with CGI. The goal of the project was to explore virtual interactivity and real-time pre-visualization techniques for the convey of live action with 3D image sequences.

### **Graduate Studies in Computer Science, 2003**

Harvard University, Cambridge MA

Course work included Unix Systems Programming, Web programming in Perl, Advance Topics in Data Networking Protocols and Internet Architectures, Computer Networks, Java for Distributed Computing, and Database Management Systems.

### **Graduate Certificate in Applied Sciences – Software Engineering, 1999**

Harvard University, Cambridge MA

Course work included Introduction to Computer Science using C and C++, Data Structures and Algorithms, Communication Systems and Technology, Electronic Communication, Communication Protocols and Internet Architectures, Object Oriented Software Engineering, and Client/Server Computing. Research papers and programming projects focused on the study of computer network systems, network programming, implementation residential broadband services, and integration of multimedia services over high speed networking systems and the Internet.