Trevor Hunsaker

Adaptive Bitrate Streaming Engineer & Manager

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Qualifications

Skills

Effective, audience-specific technical communication

Designing effective solutions to streaming video problems

Managing a remote-first distributed development team

Collaborating with colleagues in multiple timezones (USA, Israel)

Technical

HLS, DASH
Fairplay, Widevine
VAST, VMAP, Server-side Ad Insertion
Python, Django, JavaScript
Linux, Win, OS X

Professional Experience

Director, Software Dev Engineering

Verizon Media, Media Platform

Sept 2019 - Present

- Core member of "Video Rethink Project" tasked with reimagining platform's core design approaches
- Participating on the Change Advisory Board, tasked with evaluating the safety of proposed deploys
- Managing team of 14 developers
- Continued responsibility for player-facing APIs listed in "Sr. Manager" section below
- Lead designer of new features:
  - Personalized Timed Metadata in Manifests
  - Dynamic Graphic Overlays
  - Content Recommendation Engine Integration

Sr. Manager, Software Dev Engineering

Verizon Digital Media Services

May 2017 - Sept 2019

- Managing team of 10 developers, supporting on-demand and live streaming playback for customers such as ESPN, Disney, ABC, and Fox.
- Responsible for player-facing APIs which:
  - Generate dynamic HLS & DASH manifests
  - Serve authenticated requests for video decryption keys / DRM licenses
  - Communicate with ad servers, insert personalized ads directly into the stream, and pass ad info to players
- Above APIs work at scale, serving up to 1.6M concurrent viewers
- Grew the team from 6 to 10 members

Software Engineer

Verizon Digital Media Services (previously Uplynk)

September 2014 - May 2017

- Team Lead for dynamic HLS & DASH manifest generation & server-side ads communications
- Built FairPlay Streaming (FPS) key server implementation
- Initial architect of dynamic DASH manifest generator
- Initial architect of Widevine license server integration
- Architect of ESNI (SCTE 224) ingest and playback system (personalized blackouts)
- Inventor on patent 10,572,909: Hybrid Client-Side Beacon Tracking
- Refactored API code to make it more easily extensible

Web Developer

Spillman Technologies

January 2009 - August 2014

- Architected and built user- and SEO-friendly CMS for website in Django. Expanded later to handle multiple domains. Citadex.com was live within one-week of receiving Photoshop mockups
- Designed and built intranet web-apps: Call Report, Employee Wellness Program, HR Job Req Tracker, License Tracker, Server Dashnoard, IT Quotes
- Deployment and custom integration of Customer Portal for Microsoft Dynamics CRM 2011
- Automated deployments using Fabric
- Took over maintenance and development of ASP.NET/C# intranet apps: Timecard, Condo Reservation
- Maintain extant PHP codebase, add features. Administer 3rd party PHP apps: phpBB, activeCollab, Testlink
- Designed/Built new website site features: Customer File Exchange, Registrations
- Server administration (Linux) for website and intranet (Apache, MySQL)

Architectural Illustrator

Cooper Roberts Simonsen Associates

July 2007 - October 2008

- Design/Create 3D Visualizations
- Coordinate multiple deadlines
- Color correct for multiple output devices

Talent Manager

L-3 Communications

Feburary 2007 - July 2007

- Create HTML/JavaScript/Flash training modules for employees
- Team Javascript Lead

Media Development Specialist

L-3 Communications

February 2004 - February 2007

- 3D Modeling, Texturing, Lighting, Rendering, Animation, Compositing
- Graphic Design (posters, fliers, brochures, magazine ads, tradeshow displays)
- Coordinate multiple deadlines

Distinctions & Sundry Notables

Certified Widevine Implementation Partner
SANS: GIAC Web Application Penetration Tester
MCTS: SharePoint Server 2007, Configuration
Honorable Mention: Utah Film Commission Commercial Contest 2004
Director's Choice, Motion Graphics: University of Utah Digital Media Festival 2005
Eagle Scout, Scout Master
Youth Soccer Coach

Education

B.A. Digital Media, University of Utah, December 2004