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github.com/alfg
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SUMMARY

Software Architect and Open Source Software enthusiast with over 10 years of experience designing scalable, high-performance systems and leading cross-functional, multi-regional development teams. Specialized in cloud architecture, infrastructure and video engineering. Extensive background in building end-to-end video platforms and media processing pipelines delivering low-latency streaming video solutions to millions of end users.

SKILLS

- **Architectural Design:** Microservices**,** Event-Driven Architecture, Real-Time Systems, REST, gRPC and GraphQL, Low-Level Programming
- **Video Engineering**: FFmpeg, Adaptive Streaming, Video Transcoding, Playback
- **Cloud**: AWS, Azure, Google Cloud, Dolby Hybrik, Elemental, Media Services
- **Methodologies**: Agile, Scrum, Clean Architecture, Domain-Driven Design, Minimalistic Design
- **Leadership**: Team Mentorship, Stakeholder Communication, Technical Roadmap
- **Languages**: Go, TypeScript, Python, Rust, C, C#, Java, HTML

EXPERIENCE

Software Architect / Principal Engineer - Video Engineering
NBCUniversal / SkyUK / PeacockTV - Remote | Feb 2020 – Jul 2025

- Provide mentorship and guidance to a team of engineers as a technical lead
- Project architecture, guidelines, and best practices for cloud native projects in Go
- Develop infrastructure architecture for event driven applications in AWS and GCP
- Design and develop media encoding and packaging solutions to deliver streaming content to millions of end users
- Build internal development tools for media services
- Patent Inventor - Video Streaming Ad Transcoding Platform

Go, Python, NodeJS, TypeScript, JavaScript, AWS, GCP, Kubernetes, Docker

Software Architect - Video Engineering
Fandango (NBCUniversal) - Beverly Hills, CA - Hybrid | Dec 2015 - Jun 2020

- Distributed encoding and packaging solutions for on-demand content at scale
- Cost optimization solutions for video streaming and storage
- Implemented DRM technologies FairPlay, PlayReady, and Widevine
- Developed Web Players for streaming protected content
- Load-testing tools for application stress testing in preparation for high volume events
- Received Tech Award for Innovation

AWS, FFmpeg, Golang, Microservices, NodeJS, Bento4, ISO-BMFF fMP4, HLS, DASH, ABR, Docker, DRM, MP4Box

Application Developer Consultant
Precision Development - Hermosa Beach, CA | Nov 2014 - Nov 2015

- Created a full stack Playback Web Application using the Youtube API
- Develop features and maintained frontend and backend application code
- Created a Serverless infrastructure utilizing AWS Lambda + API Gateway
- Software Consulting on Booking services in the Hotel Industry

HTML, JavaScript, C#, ASP.NET, Node, AWS

Web Developer
Phenomenex Inc. - Torrance, CA | Nov 2012 - Nov 2014

- Responsible for all front-end development
- Design, develop HTML, CSS and JavaScript/jQuery code
- Design and improve UX/UI based on product specification
- Maintain ASP.NET and C# Web Applications hosted in Microsoft Azure
- Develop JavaScript embedded web tools and widgets
- Refactor and improved performance and optimizations to reduce page load responses
- Created custom knowledge base Content Management System (CMS)

Frontend Developer / QA Engineer
Pictage Inc. - Torrance, CA | Mar 2008 - Nov 2012

- White Box, Black Box, Regression and Browser Compatibility testing
- Maintaining Front-end Web Development
- Providing Production and Marketing Software Configuration Support
- Troubleshooting and Problem Solving for Internal Employees and Customer Support
- Automation in Python using the Selenium and Mechanize Frameworks
- Creating reporting tools using Python and PostgreSQL
- Develop production monitoring tools

PROJECTS & PUBLICATIONS
- **Open Source:** Multimedia based open source projects with millions of downloads.
- **Blog**: Technical development blog on building low-level multimedia tools
- **US Patent Inventor**: Ad Transcoding Platform (US 12,225,264 B2)