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EXPERIENCE

- Apple* - Technology company that specializes in electronics, software, and online services. **2020 - ***
- Built FaceTime links, service that allows users to join FaceTime from a web browser
 - Designed and implemented media Quality of Service subsystems
- Amazon* - American electronic commerce and cloud computing company **2018 - 2020**
- Designed and implemented Pure C WebRTC implementation for embedded devices
 - Worked on Chromium on Android/Linux/Windows, the foundation for Amazon Silk
 - Added support for Mediatek WebRTC H264 encoding on Android
- Infiniscene* - broadcast studio built on the web **2016 - 2018**
- Wrote cloud compositing engine, ingestion of many sources and output to many destinations
 - Created ingestion engine, handles multiple popular transports RTP/UDT/SRT/RTMP
 - Deep WebRTC usage, worked with ICE/DTLS/Custom signaling in GStreamer
 - Created H264 analyzer to educate users, parsing byte-stream to warn about unsupported features
 - Updated developer tooling, moved developers over to shared Docker workflow
- Etsy* - e-commerce website focused on handmade **2014 - 2016**
- Improved *Kibana*, adding aggregations and features for internal use
 - Worked on internal IRC client that aimed to humanize users, adding proprietary extensions
 - Upgraded Etsy to PHP 7, which involved porting multiple language extensions written in C
- onShore Development* - Creator of Webcheckout, an scheduling and asset management application **2013 - 2014**
- Converted Web App to be API driven, using Common Lisp and PostgreSQL on the backend
 - Ported frontend to Angular/Bootstrap, replacing projects in Dojo and jQuery
- System Associates* - Developer of full stack software and hardware for major hotels **2011 - 2016**
- Used Asterisk with custom Dialplan and Applications written in C to create a hosted PBX
 - Created a deployment system using git so updates and new installs can be done seamlessly
 - Developed a web interface to manage PBX

PROJECTS

Pion WebRTC - *Pure Golang implementation of WebRTC.*

Creator, Implemented SRTP, SCTP, STUN and ICE. No 3rd party library usage.

WebRTC for the Curious - *A book on how WebRTC really works.*

Author, learn about the protocols of WebRTC. A book that goes beyond the APIs.

amazon-kinesis-video-streams-webrtc-sdk-c - *Embedded WebRTC Implementation*

Designed and worked with team of 5 to implement. Used in IoT/Robotics.

GStreamer - *Free pipeline-based multimedia framework.*

Added **AV1** support. Fixed bugs, added flvmux feature

PHP - *Scripting language especially suited to web development.*

Added **class constant visibility** to the language. Ported msgpack, oauth, yaml and others to PHP 7

Janus - *WebRTC gateway, mostly used for relaying RTP*

Added ECDSA Cert generation, fixed bugs, small streaming features

Chromium - *open-source Web browser project started by Google*

Added support for Mediatek WebRTC H264 encoding on Android

fail2web - *fail2ban GUI, written with Go and AngularJS.*

Creator, contributed to **fail2ban** and **ogorek**