Sean DuBois

sean@sioBuD.com

GitHub.com/Sean-Der

EXPERIENCE

Amazon - American electronic commerce and cloud computing company **2018 - ***
- 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 **2012 - 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

Virtual Technologies Group - VoIP and IT services provider **2011 - 2012**
- Wrote custom dialplan for school systems
- Created a web portal that simplified a multi-day PBX order/setup process to 5 minutes

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**