

## Summary

Over 17 years of experience in seeing products through the full development life cycle in many languages, environments, and platforms. Not afraid to lead, challenge, or be challenged. Results driven and focused on finding elegant solutions to complex problems.

## Highlights

- Full stack architecture design and development across many desktop and mobile platforms.
- Proficient in C++11, Python, and many other languages. Never afraid to learn more.

## Professional Experience

### 2008 Content Watch Holdings, Inc., Lead Software Architect

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Present

- Design and realization of “Ghoti” (ˈfɪʃ) platform agnostic framework allowing for next generation of threat management on mobile and desktop. Ghoti is the foundation for over 5 shipping products on Android, iOS, OS X and Windows. (C++11, Python, Lua, Boost)
- Directed design and core developer of Network Access Redirect and Control (NARC) kernel and user space modules providing traffic capture and manipulation in a uniform manor independent of platform. (POSIX / C99)
- Proof of concept R&D for future technologies and product lines.
- Develop and document coding style and best practices for developer team.
- Lead team design meetings and work closely with PM and QA for feature design.
- Worked with Microsoft to diagnose WFP Connection Redirection issues when multiple callout drivers are used on the same machine. These changes have now been pushed to the official WFP documentation and samples. (Win32 / C99)
- Debugging of resource and I/O issues with Redis, MongoDB and Erlang services.
- Solved SSL/TLS and load balancing issues with MochiWeb using HAProxy.

### 2005 ContentWatch, Inc., Sr. Software Engineer

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2008

- Core designer of “Alta” framework providing base for ContentProtect, Net Nanny, and ContentCleanup product lines. (Win32 / C++, wxWidgets)
- Designed and developed social networking profile capture features for Facebook, YouTube, MySpace, and others using OAuth and REST APIs.
- Reverse engineered proprietary protocols in order to develop dissection components for instant messaging, chat, peer-to-peer and many others using pcap & Wireshark.

### 2000 iAccess, Inc., Software Engineer

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2005

- Designed and developed ContentWatch, ContentCleanup and other flagship products allowing the path towards the formation of ContentWatch, Inc. (Delphi, C++)
- Developed ContentAudit, an in browser ActiveX based solution for discovery of inappropriate content found in browsers cache, driving sales to available cleaning, monitoring, and filtering products.
- Created PopupProtect, a browser agnostic popup blocker using DLL injection for pre-LSP Windows operating systems. (Delphi)

**1998** **America Online, Third Party Technician**

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- 2000
  - Developed internal intranet-only accessible issue tracker and knowledge base.
  - Performed internal beta testing for Kodak-AOL “You've Got Pictures!”
  - Isolated multiple instance issue in 2.5 client causing “ATOM” bug resulting in dramatic decrease of call volume across all AOL technical support centers.
  - Handled high profile customer issues such as chat availability and keyword resolution.

## Skills

<i>Strengths</i>	<i>Languages</i>	<i>Systems &amp; Hardware</i>	<i>Standards &amp; APIs</i>	<i>Tools</i>
Architecture & Design Leading Modularity OO/Abstraction Multi-platform Debugging Crash Analysis IPC Threading Concept Development	C++ / C++11 Obj-C C Java Delphi / Pascal Python JS & Node.js Shell (Various) SQL NoSQL Lua RegExp	Windows Linux BSD OS X / Darwin Android iOS  ~ x86 x86_64/AMD64 ARM AARCH64	Unicode & i18n Boost, STL REST JSON & XML RPC ANSI C POSIX Win32 Cocoa TCP/IP SSL/TLS OAuth ES5 / ES6	Visual Studio Eclipse Xcode GCC, Clang Premake, Bakefile Make, NMake Git, SVN, CVS, HG Doxygen WinDbg GDB, LLDB Bugzilla Phabricator, Jira

Advanced Installer, Android NDK/SDK, COM, CSS, ELK, Google Test, HAProxy, HTML, ICU, Inno Setup, MongoDB, Mozilla, MySQL, NSS/NSPR, OpenSSL, Redis, SQLite, WMI, Windows Filtering Platform, XPCOM, libcurl, libxml2, nginx, pfSense, wxWidgets, zlib

## Awards & Patents

**2012** **Methods Related To Network Access Redirection And Control, Inventor**

US 2012/0124641 A1, “Methods Related To Network Access Redirection And Control And Devices And Systems Utilizing Such Methods”.

**2002** **Employee Of The Year, ContentWatch, Inc.**

**1999** **ATOM Award, America Online**

Awarded for solving AOL “ATOM” issue and reducing technical support call volume.

**Blog**  
l33t.codes

**Stack Overflow**  
goo.gl/etCEV8

**GitHub**  
github.com/NuSkooler

**LinkedIn**  
goo.gl/7kHPgh

References available upon request

