









# Nathan Rickey

## Technical Lead

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### Summary

Proficient in C/C++ and Go, with extensive experience developing for desktop, mobile, and console platforms. Expertise include integrating complex frameworks and libraries, system architecture, and end-to-end development. Passionate about all aspects of modern computing, from wearables to deep learning.

**Technical Lead at Cisco**

Oct 2020 - Oct 2025

- Served as the subject matter expert for the Webex client's audio engine across all platforms (Windows, macOS, iOS, Android).
- Led the successful integration of advanced Speech Enhancement features into the core audio engine, delivering critical fixes and improvements.
- Designed and implemented client-side Bluetooth LE and signaling features for complex multi-participant colocation use cases within Webex.

**Senior Software Engineer at BabbleLabs, Inc.**

Jan 2019 - Oct 2020

- Solely developed the Windows and macOS virtual audio devices to integrate a machine-learning speech separation model into a real-time environment.
- Built and maintained the end-to-end desktop applications that enabled the technology to be used with any communication software.
- Engineered the product that enabled the first real-time, low-latency demonstration of the core technology, which was instrumental in the company's successful acquisition by Cisco.
- Successfully navigated the complex Microsoft hardware certification (WHQL) and signing process for the Windows virtual audio driver.

**Senior Software Engineer at Bowers & Wilkins**

Dec 2017 - Nov 2018

- Re-architected and implemented media player management including local HDMI playback as well as peer-to-peer streaming.
- Implemented an internal test application to drive all use cases and validate integration with the application layer.

**Senior Firmware Engineer at Doppler Labs**

Apr 2016 - Nov 2017

- Architected and implemented all firmware for a charging case and a platform for device communication and internal firmware updates.
- Primary contributor for a Python-based firmware update application released to all device purchasers.

**Senior Software Engineer at Qualcomm**

May 2010 - Apr 2016

- Implemented Modem-based Voice and Video Over IP based on 3GPP Standards (IR92, IR94).
- Managed SIP call flows, SDP based media negotiation, and LTE QoS.
- Worked with wireless operators (VzW, ATT, DoCoMo) and OEM manufacturers (Sony, HTC, Motorola) across the world.

**C++ Game Programmer at Kalloc Studios, Inc.**

Aug 2007 - May 2010

- Launched internationally-published PS3 titles including The Saboteur and Destroy All Humans! 3.
- Developed and maintained PS3 code, tools for content pipelines, and cross-platform multiplayer networking.

**Engineering QA Analyst at Sony Online Entertainment**

Aug 2005 - Sep 2006

- Performed pre- and post-launch testing on the MMO RPG EverQuest II.
- Created and conducted test cases for engineering team code changes and reported regression.

Projects

I own several Raspberry Pis and Mini-PCs and enjoy tinkering with web technologies in my free time. I'm very interested in almost all aspects and languages of software development. I've built all my own desktops from parts since around age 12. I love thinking about and talking about all aspects of modern computing -- from wearables to deep learning.

Skills

Languages				
C++	Go / Golang	Java	Objective-C/C++	PHP
C	Python	C#	Javascript	
Technologies & Frameworks				
Qt	Boost	TinyXML	Bluetooth LE	
Unreal Engine	STL	FMOD / Wwise	nginx	
PS3 & Xbox 360 APIs	Google Test / Mock	SIP / SDP		
Specialties & Methodologies				
Problem Solving	End-to-End	Optimization	Automation	Git
Software	Development	Continuous	Driver Certification	Perforce
Architecture	Test Driven Dev	Integration	Real Time OS	