Jonathan Ross

Boston, MA

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Proven leader and software architect with a history of delivering large, complex, interdisciplinary products. Effective at leading and mentoring large teams and driving consensus and collaboration across vastly different technology stacks. Takes a business-minded, solutions-driven approach to technical design.

Technical Skills

Languages:	C/C++, TypeScript, JavaScript, Java, Python
Graphics:	Qt/QML/WebEngine, GStreamer, Ogre3D, Pixi.js, Three.js
Vision:	OpenCV
Frameworks/Libs:	STL, Boost, Poco, ALSA, v8
Embedded:	Buildroot, Arduino, Raspberry Pi, Android
Web:	HTML5/CSS/JS, React.js, Electron, RESTful design
Cloud:	Node.js, Tomcat, AWS, Docker, Microservices Architecture
NLU:	DialogFlow
Tools:	Git, GitHub, Jira, Agile (Scrum)
Build:	Make, CMake, QMake, Gulp

Experience

Jibo, Inc — Boston, MA

Chief Architect — April 2018 - June 2018

- Technical lead for a team of 50 engineers.
- Set technology vision and direction for the company.
- Converted business objectives into a unified technology plan.
- Sole technical stakeholder for all product decisions.
- Main point of contact for all technology integrations with external business partners.
- Restructured team and appointed architectural leads to most effectively cover all major components of the tech stack.
- Designed large key components including dynamic proactivity, reminders, 3rd party cloud push, 3rd party cloud integration and authentication models, sandboxed cloud-hosted on-robot skills, and hybrid cloud/on-robot skills.
- Spearheaded unification of cloud infrastructure to enable faster cross stack development of new features.

Chief Robot Architect — November 2017 - April 2018

- Lead a team of 12 robotics and vision engineers in a total rewrite of Jibo's embedded software stack, called "Project Phoenix".
- Set overall architectural direction of Phoenix and developed a transition plan to fast track it to production.
- Lead developer for Jibo's new graphics system built using Qt.
- Technical lead for all embedded development including v1 systems.

Head of SDK — Jan 2015 - November 2017

- Overall architect and SDK team lead.
- Hired, built, and led a talented team of 5 engineers and 2 QA testers responsible for the development of Jibo's SDK, which include visual behavior editors, NLU and dialog tools, animation tools, and a robot simulator.

Software Architect November 2012 - Jan 2015

- Second employee and first engineer at Jibo.
- Ideated and pitched concepts/demos to investors.
- Responsible for building 2 prototype robots, one of which starred in Jibo's Indigogo campaign.
- Worked full stack, writing everything from microprocessor firmware to high level behavioral engines.

Zynga San Francisco, CA

Principal Software Engineer May 2011 - October 2012

- Tech lead and server and client side engineer for ChefVille.
- Developed RAD, a UI framework that became the standard at Zynga and localized into 18 different languages, including languages read right to left.

Senior Software Engineer March 2011 - May 2011

- Client and server side engineer for CafeWorld and CityVille.

Disney Los Angeles, CA

Senior Software Engineer November 2007 - March 2010

- Developed and maintained high performance real-time server side technologies for current and unannounced virtual worlds.
- A lead developer on *World of Car Online*, a Flash based 3D MMO for kids. Developed custom server and client rigid body physics engine, hand-tuned for low end machines; AI and an AI scripting system; single and multi-player Circuit Racing; and the race career and treadmill system. Also co-wrote the game's questing and questing scripting system.
- Inventor of ToyBridge, a framework for communication between a web deployed Flash application and hardware devices.
- Member of ToyMorrow, an interdivisional high-tech toys of the future think tank.

Xplana Learning Boston, MA

Senior Software Engineer June 2006 - November 2007

- Led a team of client side engineers in developing online learning software.
- Developed an online customizable ebook, and math learning courses, which won a Codie award for "Best Mathematics Instructional Solution."
- Participated in overall company strategy, and pushed new ideas and technology to keep products on the cutting edge.

Nicolelis Neuroscience Lab at Duke University Durham, NC

Research Engineer May 2004 - May 2006

- Provided mathematical analysis of brain waves.
- Wrote programs to aid in the visualization of these data.
- Developed an algorithm to automatically detect brain states in rats (REM, Slow Wave, Awake) base on brain signals.
- Implemented artificial neural nets to show and imitate the mathematical properties of dreams.

Patents

Persistent companion device configuration and deployment platform
United States Patent Application 20,170,206,064
Filed March 30th, 2017

Apparatus and methods for providing a persistent companion device
United States Patent Application 20,150,314,454
Filed July 15th, 2015

System and Method for Integrated Hardware Platform for Flash Applications with Distributed Objects
Patent No.: US 8,924,989 B2
Granted December 30th, 2014

Speaking Events

Babson November 2017 - Present
Recurring guest lecturer for entrepreneurship classes

Github Universe February 2016
Building a Social Robot with Atom and Electron

SpeechTek August 2015
Building Skills for a Conversational Robot

Exploring Computer Science April 2010
Program targeting high school students meant to increase the number of minorities and women who gain exposure to engineering

USC GamePipe Laboratory November 2009
Speaker for seminar series on game AI and physics

Awards

Best Invention of 2017 Time Magazine
Time's annual best inventions issue awarded Jibo best invention of 2017

CTO Award Zynga
For the development of the RAD UI framework

Disney Inventor Award Disney
Walt Disney Inventor Award for ToyBridge

Education

Duke University Durham, NC
BS Electrical Engineering