

Wall St. Still Doesn't Grok Tesla

Wall St. still doesn't fully understand yet that Tesla is not just a car company. Analysts and traders treat Tesla on traditional car company metrics like next-quarter units sales, while the big picture is largely ignored. The big picture is much more interesting (and profitable):

1) Tesla is as much a software company as anything else

The over-the-air updates have made numerous [headlines](#), but look closer and you see it's in Tesla's DNA to think, hire, act, and iterate like a software company. For example, Tesla just [hired](#) ex-Googler Chris Evans as Head of Security. Here's a snapshot of his [linkedin profile](#) (which, fittingly, he hasn't updated recently):

Chrome Security

Google

May 2009 – Present (6 years 7 months) | Mountain View, CA



Starting from nothing, I created, built and hired my way to a large world-class security team, who are recognized as leading the way in modern browser security. Google Chrome is broadly recognized across the industry as being the most secure of the common browsers. Aside from leading and having overall responsibility for the team, I also undertook some significant technical initiatives. This includes "certificate pinning", which is well-known for detecting the DigiNotar compromise. I also launched the Chromium, Google Web, and Pwnium programs. Considered highly unusual and progressive when launched, they are now largely considered industry best practice.

Sole author

vsftpd

January 2000 – Present (15 years 11 months)

vsftpd is a securely architected and written FTP server. It powers some of the largest FTP sites on the internet. It is the primary FTP server shipped with RedHat and SuSE Linux. vsftpd pioneered what is now called "privsep" or "privilege separation" technology, which is now considered best practice. For example, the (much more important!) OpenSSH software now uses privsep.

Information Security Engineer and Tech Lead

Google, Inc.

July 2005 – May 2009 (3 years 11 months)



Providing leadership to a talented team of security professionals. Finding vulnerabilities in Google's products and services to secure Google against hackers. WE ARE ALWAYS HIRING ALL TYPES OF SECURITY STAFF AND INTERNS! Contact me.

Principal Security Analyst

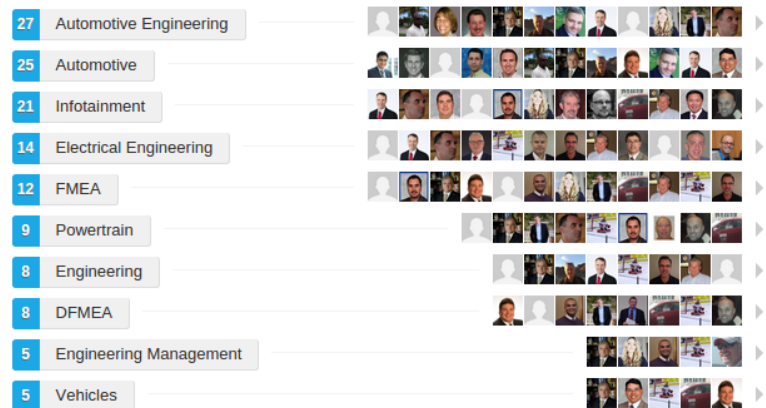
Oracle Corporation



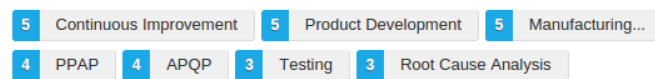
Pretty strong software cred. From writing [vsftpd](#), a popular unix tool, to working on security at Google; this guy lives and breathes code; specifically software-security.

By contrast, let's look at GM's [Chief Product Cybersecurity Officer](#):

Top Skills



Jeffrey also knows about...



Mr. Massimilla is a lifer in the car industry, and primarily an automotive engineer. This is a *very different* skillset than Mr. Evans' above. It's widely [acknowledged](#), even in the traditional car sector that these machines are becoming computers on wheels. Which of the above skillsets looks more suitable for managing data-security over fleets of these things wirelessly connected to the internet at all times?

2) Tesla is a data company

Google has [released](#) striking numbers regarding the 1,000,000+ miles they've autonomously driven in the past few years, mostly in beautiful, Mountain View, California with its pot-hole free roads and perfect year-round weather:

Castro St, Mountain View, California



By contrast, Tesla is collecting 1.5 million miles [*per day*](#) of real-world driving information from their fleet of computers-on-wheels. This includes places like...New Jersey:

New Jersey Turnpike



...and the cars are [already](#) using these data to self-improve, just three weeks after the launch of Tesla's "auto-pilot" feature. GM will release [Super Cruise](#) control in a couple years, maybe.

3) Tesla is not just about cars

On the hardware side, Tesla is as much about pioneering battery technology as it is [driving experience](#). Their Lithium-Ion tech is unmatched at their price-point and scale, and Tesla's under-construction giga-factory, which is [ahead of schedule](#), will "[produce more lithium ion batteries annually than were produced worldwide in 2013.](#)"

On the back of this battery prowess, they're soon releasing [Home](#) and [Utility-scale](#) storage batteries that are already [changing the calculus](#) for traditional utilities. This line of business is [shaping up](#) to be critical in allowing renewables like [solar and wind](#) to be cost-competitive with traditional power in the short-term, and far cheaper in the long-term. [\\$Trillions](#) will be spent revamping global power systems in the next few decades, and battery technology is key.

A Wall St. analyst may look at the above as hype, and maybe it is. But if Tesla succeeds, the magnitude of their success will be shocking.

Edit: Here's an excellent post by [Chamath](#) arguing that Tesla will become the first HaaS (Hardware As A Service) company at scale: [HaaS and the Future of TSLA](#)

Disclaimer: I own Tesla shares. How could I not given that I believe the above?