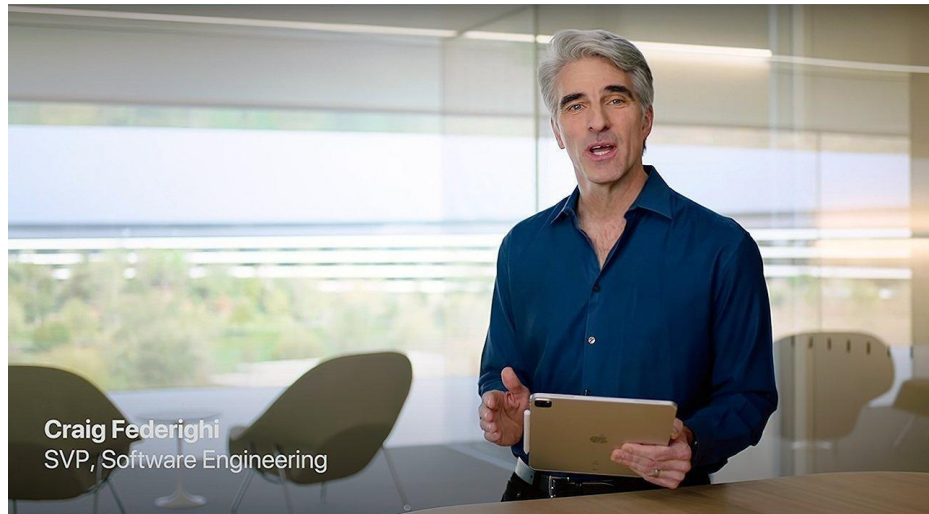# CRAIG FEDERIGHI

Craig Federighi is Apple's Senior Vice President of Software Engineering (SVP) and I have chosen to write his biography due to his influence on my decision to become a computer scientist. One of the main reasons for this influence is the way he speaks about software features and his firm belief in putting the user experience above all else. In particular, watching his 'Apple Developer' keynotes throughout the years is one of the reasons I became interested in software development. Federighi loves what he does and his fresh and engaging approach has captivated many young computer scientists.

He believes that software engineering is a team sport, a collaborative and supportive environment is essential for building things at scale. Communication is incredibly important when building software. Federighi believes that sometimes the best advice can come from the customer and by listening to their needs the developers can empathize with them.

In his leadership, he respects all disciplines and works very closely with hardware to implement seamless interaction. The way that the UI flows on all Apple devices and how they interact with each other is one of Federighi's largest achievements since becoming SVP in Software Engineering in 2012.

"We will go to the most absurd lengths seemingly to get something just right, to solve, to do the level of architecture work that normally would constitute the most critical element of a product. But we'll focus that amount of energy and more to say, 'That blur has to be just right. That detail has to be just right." [1]

Federighi oversees the development of all of Apple's major operating systems, including macOS, iOS, iPadOS, TvOS, and watchOS. His systems are responsible for delivering the Apple experience with every Apple device including user interface, applications, and frameworks. Federighi contributes enormous technical expertise to the company and frequently appears on stage during product launch events, such as the 'Developer's Conference'. His passion for Apple hardware and software, combined with his charisma contributes to his ability to inspire.

CRAIG FEDERIGHI

EARLY LIFE

Craig Federighi was born on May 27, 1969, in San Leandro, California. From an early age, Craig admired Steve Jobs. As a young boy, he began saving his allowance and bought an Apple 2. A very focused and ambitious individual, he had a passion for software development and followed this throughout his education. He wanted to become an engineer because he believed in the power of technology and the ability it has to enrich our lives.

Federighi earned a Bachelor of Science in Electrical Engineering and Computer Science from the University of California, Berkeley. When he finished his degree, he received an offer from Oracle for a well-paid position, but he decided to return to Berkeley and complete a Master of Science in Computer Science.

CAREER

After completing his master's degree, Federighi followed his idol Steve Jobs, to NeXT. Federighi's biggest breakthrough at NeXT was creating a piece of software called Enterprise Objects Framework (EOF). It allowed desktop computers to connect with a common database used by businesses. This software was so robust and innovative that it's still a part of the XCode program at Apple today.

After Apple acquired NeXT in 1996, he worked as a developer with them for 3 years before moving to Ariba (which was then pioneering e-commerce). He gained a lot of experience in leadership roles at Ariba as he was Ariba's Chief technology officer and later he was the Vice President of Internet Services.

After a few years of being a semi-executive, he decided to return to being an individual software engineer and contributed a lot to open-source projects. His passion for programming shone through with the decision to leave his prestigious job to immerse himself as a contributor again. At Ariba, he oversaw Platform architecture, product strategy and headed the UI and App design teams. Federighi stayed at Ariba for 10 years until he returned to Apple in 2009 to lead macOS engineering.

He was promoted to SVP in 2012. After this, his role was expanded to include iOS as well as Mac Software Engineering. Over the last 10 years, Federighi has helped It is the world's second-most widely installed mobile operating system. In addition to this remarkable feat, he is also helping macOS grow in the laptop and PC market now holding the place of second most widely used desktop OS.

PRIVACY

In recent years, Federighi has propelled Apple to become one of the most privacy and security-focused tech companies. Federighi believes privacy is a "fundamental human right" and under his leadership, the following privacy rules were implemented.

CRAIG FEDERIGHI

1. Not collecting unnecessary data through data minimization,
2. Processing as much data on the device as possible
3. Making it clear to customers what data is collected and giving customers tools to control how that data is used.
4. Keeping data safe through security, including Apple's unique integration of hardware and software.

"Personal information can be used and abused and even weaponized in ways that can be destructive–often in a way that's not really all apparent to the person who might be giving up that information."

Security is the foundation of privacy and Federighi believes that the data that we create and the things we do with our online presence are ours and should be under our control. Apple continues to make waves in the software privacy sector as the app tracking transparency feature was enabled in early 2021, at the time it had some developers and advertising companies up in arms. iOS and macOS also implemented several privacy features in iOS 15, including iCloud+, which includes Private Relay and a way to crack down on "hidden pixels" in emails. Federighi hopes Apple will be remembered not just for its devices, but for helping humanity enjoy the benefits great technology can bring without requiring that they give up their privacy to do it.

INTEL–ARM TRANSITION

Apple officially announced its shift to processors designed in-house at WWDC in 2020 with the transition planned to last for two years. The change in processor architecture allows Macs with ARM processors to be able to run smoother with Apple devices. Federighi helped spearhead the transition with the announcement of Rosetta 2, which is a dynamic binary translator that runs in the background and allows x86 Intel-based apps to help with the transition to ARM-based commands. This translator was highly praised and in some cases, x86-only programs performed better under Rosetta 2 than with an Intel processor. With the announcement of the M1Pro and M1Max this month, it's exciting times for Federighi as he battles with Windows and ChromeOS to become one of the most widely used desktop operating systems.

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Federighi was pivotal in the UI design change in iOS 7

Conclusion

The most interesting and admirable thing about Federighi is his passion for interaction design. He considers building software as a challenge to connect a piece of work to a customer experience. He enjoys thinking about the connection between great design and how that enhances a customer's experience and what the underlying architecture involves.

There's no denying that Federighi is a very important software engineer and has had a profound impact on my view of the software development world and how certain software can influence billions of people.It's clear that with Federighi's leadership that Apple's dominance in software and hardware will continue to grow.

"People sometimes have a view of programming that is something solitary and very technical. But programming is among the most creative, expressive, and social careers."

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