

## Corville Allen: Demystifying the Path to a Patent

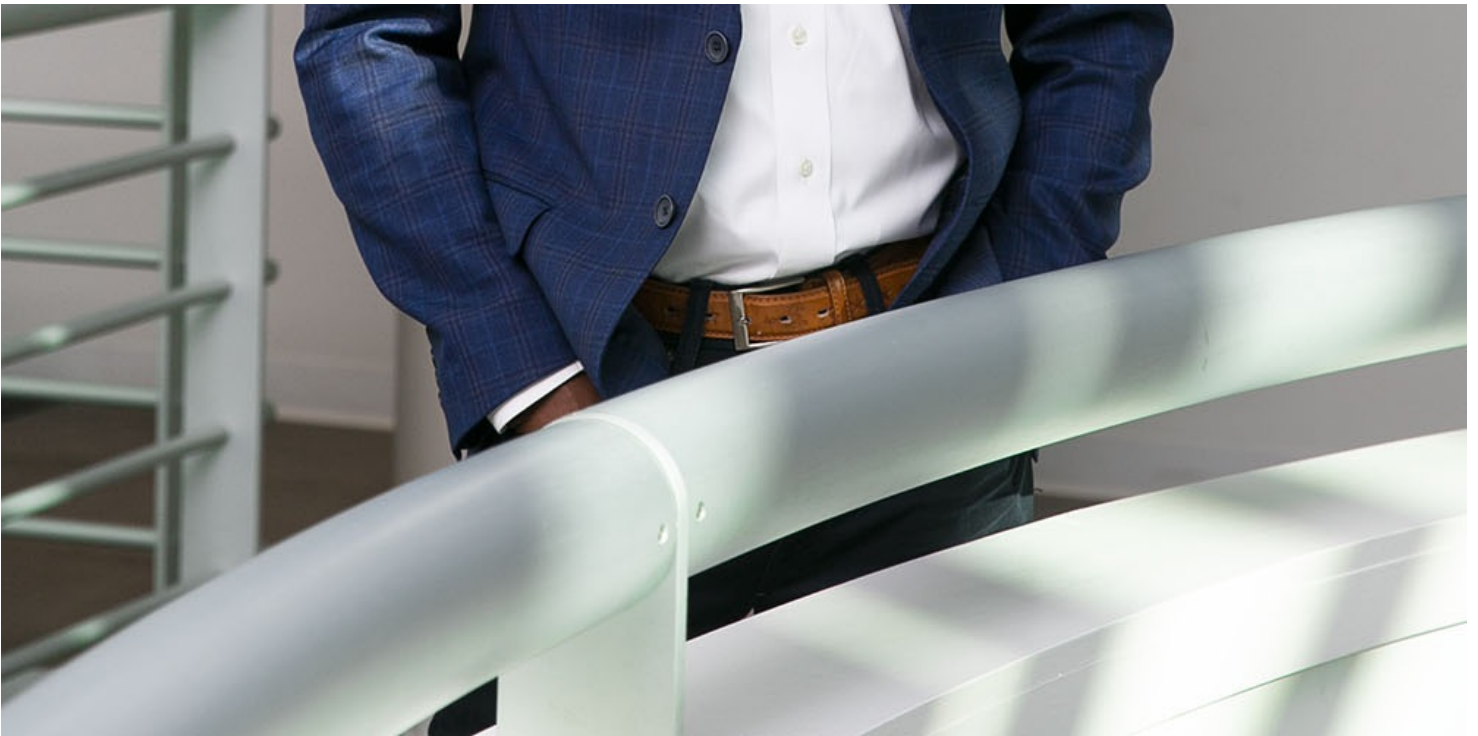
*By James Daly*

Corville Allen wants to take the mystery out of getting a patent.

“It’s not hard—you’ve just got to know what you’re doing,” says Allen, a senior technical staff member and [Master Inventor](#) at IBM’s Research Triangle Park facility in Raleigh, N.C.

Allen, who has accrued more than 200 patents during his 18 years at IBM, is co-chairman of the Research Triangle Park chapter of Patent Champions, a vibrant and supportive forum for IBM’s inventor community. Through Patent Champions, Allen and other experienced colleagues educate would-be inventors on the path they must travel to turn clever insights into an invention, right up to their final presentation to an internal patent review board—a rigorous process he says is “a bit like defending your thesis.”





TAYLOR McDONALD Corville Allen, an IBM Master Inventor, has accrued more than 200 patents during his 18 years at the company.

Various chapters of Patent Champions are located around the U.S. Each year more than 500 people from all sorts of backgrounds participate and take advantage of the program. “Diversity always makes the work stronger,” he says.

That strength has led to big rewards. The nearly 9,300 patents IBM received in 2019 “doesn’t happen by accident,” Allen says.

### **An IBM Tradition**

Several times a year, the Patent Champions group holds workshops and events where innovators determine which bits of their work might be patent-worthy. “Some of the younger IBMers have no idea if what they’re doing is novel or even worthy of a patent,” Allen says. “We can help them determine that, and help them get the patent process going. We can get them over that first hump.”

Under [U.S. patent law](#), any person who “invents or discovers any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement,” may obtain a patent, which secures legal protection for intellectual property (IP).

“When it comes to pulling out IP from research and development, we want to identify first what’s novel,” he says. “Then you need to be able to articulate why what you’ve done is important compared to the rest of the known ways to solve this problem. If you can, then this IP could be valuable to IBM, and we’d be interested in applying for a patent. It’s part of the culture of our company. We want to protect what we work on.”

### **Pass the Ball**

Allen, who was born in Jamaica, initially aspired to be an accountant. Those plans changed when he took BASIC programming in high school and fell in love with the problem-solving puzzles that are at the heart of writing code and crafting algorithms. He attended Iona College in New Rochelle, N.Y., where he double-majored in mathematics and computer science.

He soon landed a job at IBM, in 2001, working in e-commerce, then quickly transitioned to the Business Integration and Connectivity technology area. His initial patent application was filed in 2005 and granted in 2011. “The first one was about processing hierarchical data for disparate data sources,” Allen remembers. “We needed to come up with a novel, efficient way to execute changes in different CRMs or databases like SAP, Siebel, without writing specific code for each system.”

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Allen’s work at IBM has taken him around the country—New York, San Francisco, North Carolina—so much so that his three sons, Dennari (13), Darien (17) and Deondré (19) were each born in a different state. “You can get to travel the country with IBM,” he says. “You explore new possibilities, meet new people and cultures.” While he and his wife, Sherlene, enjoyed traveling as a way to relax, “we are *not* moving again,” he says with amusement.

When transitioning work from the research lab to the patent office, Allen says it pays to think about soccer, a sport he loves and where he has done recreational coaching. “You’re working together, passing the ball, looking for an opening and then, hopefully, you score,” says Allen.

It’s an apt analogy for Allen, who retains a boyish enthusiasm for his job. “I just love technology,” he says. “Building new things, investigating new things, exploring the mind of the inventor.”

### **Tools That Enable Smarter Healthcare**

Some of Allen’s work is focused on applying natural language processing and advanced cognitive algorithms in the healthcare industry. This is especially

important in that about 80 percent of healthcare data is unstructured.

The tools help healthcare practitioners keep pace with the relentless flow of medical literature, guidelines, trials and articles. That information can be paired with a physician's notes about a patient's health, creating a more thorough longitudinal medical record. The use of natural language processing allows an AI-based system to analyze and make sense of all that unstructured, inexact and lengthy collected data, then link it with medical literature and trial information. This can help enrich the data and processes that assist physicians and nurses at the point of care.

“Our tools, sometimes provided in the form of cloud services, are designed to capture and analyze a whole wide range of data, pulling insights and data from clinical notes and medical literature,” Allen says. “It can be tricky. Physicians sometimes communicate in definitive statements, and sometimes they speak [hypothetically](#). It's important how you weight those statements because it influences and guides clinical decisions.”

Allen says his future work will continue to explore the use of leading tech in building smarter healthcare ecosystems. He is also heavily invested in researching the potential of blockchain in healthcare. Blockchain's ability to keep an incorruptible, decentralized and transparent log of all patient data could prove very useful.

Perhaps because his lab work demands such concentration and the stakes are so high, Allen likes to escape mentally with fantasy novels. His favorite writers are George R.R. Martin, Brandon Sanderson and Terry Goodkind, authors known for taking on big ideas that stretch the imagination and conceive of places humans have yet to venture.

Which, it turns out, is a pretty good description of the work Allen does every day in the lab.

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