

## Two degrees, flies planes, author, works at NASA. His age? 17

November 2 2015, by Collin Binkley

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This August 2014 photo provided by Shu Chien shows her son Moshe Kai Cavalin at the DEF CON 23 hacker's conference in Las Vegas. Cavalin, of San Gabriel, Calif., earned a bachelor's in math from UCLA at age 15, and is taking online classes through Brandeis University, near Boston, towards a master's in cybersecurity. He's also working for NASA, where he is developing aircraft tracking technology. (Shu Chien via AP)

Moshe Kai Cavalin has two college degrees, but he's too young to vote.

He flies airplanes, but he's too young to drive a car alone.

Life is filled with contrasts for Cavalin, a 17-year-old from San Gabriel, California, who has dashed by major milestones as his age seems to lag behind. He graduated from community college at age 11. Four years later, he had a bachelor's in math from the University of California, Los Angeles.

This year, he started online classes to get a master's in cybersecurity through the Boston area's Brandeis University. He decided to postpone that pursuit for a couple of terms, though, while he helps NASA develop surveillance technology for airplanes and drones.

Between all that, he's racked up an exhausting list of extracurricular feats. He just published his second book, drawing on his experience being bullied and stories he's heard from others. He plans to have his airplane pilot's license by the year's end. At his family's home near Los Angeles, he has a trove of trophies from martial arts tournaments.

Still, Cavalin insists that he's more ordinary than people think. He credits his parents for years of focused instruction balanced by the freedom to pick his after-school activities. His eclectic interests stem from his cultural heritage, he said, with a mother from Taiwan and a father from Brazil.

"My case isn't that special. It's just a combination of parenting and motivation and inspiration," he says after a recent shift at NASA's Armstrong Flight Research Center in Edwards, California. "I tend to not compare myself that often to other people. I just try to do the best I can."



This August 2015 photo provided by Shu Chien shows her son Moshe Kai Cavalin at their home in San Gabriel, Calif. Cavalin earned a bachelor's in math from UCLA at age 15, and is taking online classes through Brandeis University, near Boston, towards a master's in cybersecurity. He's also working for NASA, where he is developing aircraft tracking technology. (Shu Chien via AP)

His parents say he was always a quick study. At 4 months, he pointed to a jet in the sky and said the Chinese word for airplane, his first word. Cavalin hit the limits of his home schooling after studying trigonometry at age 7. Then his mom started driving him to [community college](#).

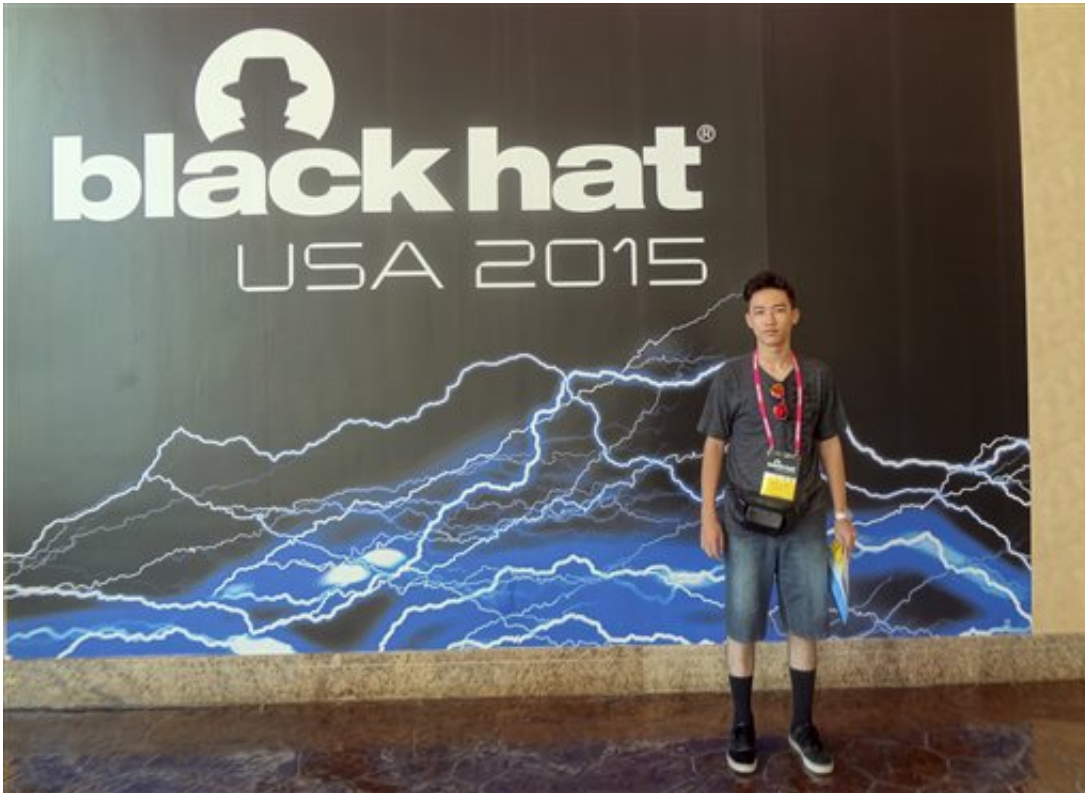
"I think most people just think he's a genius, they believe it just comes naturally," said Daniel Judge, a professor of mathematics who taught Cavalin for two years at East Los Angeles College. "He actually worked harder than, I think, any other student I've ever had."

But his rapid rise hasn't been without twists. Early in college, he dreamed of being an astrophysicist. When he started taking advanced physics classes, though, his interest waned. His fascination in cryptography led him toward computer science.

That has been a better fit, Cavalin said. He was surprised when NASA called to offer work after rejecting him in the past because of his age. Ricardo Arteaga, his boss and mentor at NASA, says Cavalin was perfect for a project that combines math, computers and aircraft technology.

"I needed an intern who knew software and knew mathematical algorithms," Arteaga says. "And I also needed a pilot who could fly it on a Cessna."

In the office, Cavalin is a quiet worker with a subtle sense of humor, Arteaga says. They laugh about the stuff scientists laugh about. His daily work at NASA has included running simulations of airplanes and drones that are headed for collision, and then finding ways to route them to safety.



This August 2015 photo provided by Shu Chien shows her son Moshe Kai Cavalin at the Black Hat USA computer security conference in Las Vegas. Cavalin, of San Gabriel, Calif., earned a bachelor's in math from UCLA at age 15, and is taking online classes through Brandeis University, near Boston, towards a master's in cybersecurity. He's also working for NASA, where he is developing aircraft tracking technology. (Shu Chien via AP)

"He's really sharp in mathematics," Arteaga says. "What we're trying to bring out more is his intuitive skills."

In conversation, Cavalin speaks with the even cadence and diction of someone who chooses his words with care. He's unflappable, at least until he discusses his distaste for being called a certain word: "One word I don't take too kindly is genius," he said. "Genius is just kind of taking it too far."

After he finishes his master's from Brandeis, Cavalin hopes to get a master's in business at the Massachusetts Institute of Technology. Later, he wants to start his own cybersecurity company.

For now, though, he's counting down the days until his 18th birthday, when he'll be able to get a full driver's license under California law. Living away from home to work at NASA, he relies on his landlord for rides to the grocery store, or he takes a taxi. His older colleagues drive him to work every day.

As for the other teenage stuff, Cavalin says he'll wait until he gets his doctorate degree to find a girlfriend. He's only half-joking.

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