Four-and-a-half years ago, The Denver Post told the story of Ryan Kramer a 14-year-old prodigy who had started at CU that fall. He graduates Friday.

By Michael Booth The Denver Post The Denver Post
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Deep in a gadget-littered warren of CU-Boulder's aerospace lab, Ryan Kramer labors toward a senior thesis deadline that tends to be a great leveler of humanity.

Young or old, male or female, brilliant or merely super-smart, everyone here is short on sleep and long on self-doubt.

Ryan Kramer, at age 18, is a nanometer from graduating one of the most difficult science programs in the nation. Other students his age are booking a prom limo, while he ponders offers from aerospace grad schools at the University of Southern California and Duke.

But Kramer, who entered the University of Colorado at age 14, has added modesty to his many accomplishments. Bleary-eyed and soldering wire leads like any other lab rat, he will first tell you how ingenious his nine teammates are, and how far he falls short.

Kramer used an IQ of 181 to pole- vault all of high school straight into CU's aerospace engineering program. Feelings of inadequacy were immediate and long-lasting.

"I went from constantly being underwhelmed to always being overwhelmed," said Kramer, on a brief lunch break from round-the-clock work on an airplane-building thesis. Just over half of aerospace entrants at CU ever finish the course.

"My friends remember freshman year as very easy. I remember it as very hard." Kramer pauses and brushes aside telltale bangs that are the last vestiges of a teenager on a face grown far leaner in five years. "A lot of my friends are way smarter than me."

Answers from the past

Kramer, though, does the mortarboard march onto Folsom Field on Friday feeling satisfied in at least one intellectual quest of his eventful youth.

When The Denver Post produced a special section about Kramer in 2004, he was adapting to CU while also searching the world for his biological father. Kramer is the offspring of donor sperm bought from a Colorado fertility clinic by his mother, Wendy, and her then-husband, Boone Thompson.

Ryan had begun asking questions about his donor-father by age 7. He and Wendy created the Donor Sibling Registry online to allow donor- sperm-produced half-siblings to use donor file numbers to find one another.

The site and Ryan's quest took him to appearances on "Oprah," nearly every major network, and in daily newspapers worldwide.

Ryan didn't want a new father figure, but he was curious to know more about where his love of science and engineering came from. When he met a half-sibling through the registry and they looked like fraternal twins, he felt a stronger itch to see the biological parenting that linked them.

He combined the limited donor-file details with potential matches he received from his own DNA test. By age 15, he had narrowed his guess down to an e-mail address, pondering long and hard before finally hitting the "send" button on his query. The donor was receptive but wary. Arranging the first meeting was like a CIA document drop, Wendy said.

Since then, though, Ryan says he has developed a warm and ongoing relationship with his biological father and a new extended family.

"There was an immediate peacefulness" for Ryan, Wendy Kramer said. "He kept saying, 'Now I know. Now I know.' "

That opened up some head space for Ryan to rededicate to CU, which, at age 15, demanded all his faculties. The challenge for any aerospace student, said professor Kurt Maute, is "to work with the right hand on this homework, and with the left hand on that lab."

Time management is key to survival in CU's fortresslike engineering building, and at 14, Ryan "fought a lot of battles early on," Maute said. Freshman and sophomore years, "it was clear he was much younger. Now when you talk to him, you don't notice a difference" with the other would-be graduates.

The dating game

Ryan still notices, though, at least in a subject that has daunted far lesser college men: college women. Starting college at 14, when a date would create age-of-consent problems, was one thing. The atmosphere in the insular engineering programs is another. Of the 60-odd students left in aerospace, Ryan said, only five or six are women.

Nor did the course load leave a lot of time for pursuit.

"We don't mingle so well outside the building," he said. "They say you're surrounded by thousands of women at CU, and that's really it: You're surrounded."

Besides, he said, it's a law of nature that GPA and time spent with girlfriends is an inverse proportion.

On occasions when Ryan did escape the program, he fled to nearby tennis courts for matches with people he found on recreational ladders or Craigslist.

"Sophomore year, it really kept me sane," he said. "I'd be stressed for an exam, but I had my appointment to play tennis afterward. Even if I had Hell Day, I could still sneak away for an hour."

Ryan is not yet on the past tense of his CU career. He and his labmates periodically pull apart their 12-foot wingspan, radio-controlled plane to get at the wiring guts and sensors. Weight has to be shaved, delicate solar cells need to be replaced.

Their goal is to extend the flying time of an off-the-shelf plane by 250 percent, using solar cells glued to the wings and more efficient electronics. The list of parties interested in the results ranges from the Air Force to green power groups. (Kramer prides himself on being among the army of young political activists supporting President Barack Obama's drive for clean science.)

"Our model compared to our empirical observation is only off by 2 percent," shouts Ryan, slapping Noah Moore on the back. "That's awesome!"

As project manager, it's Kramer's job to monitor each team member's progress, check weather schedules and

arrange for expert test pilots on flying days.

Stumbling over lab debris, skateboards and errant backpacks, and reeling from canceled flights, Kramer says he has reached his primary thesis conclusion: "Never test your weather-dependent senior project in spring in Colorado."

Another trick he has learned is that lab partners are more willing to cover for you if you say you're leaving town to tape yet another "Oprah."

He does not yet claim to have learned much about money, though he worked for a local hedge fund last summer and started investing a small inheritance from his grandmother. Ryan will pursue the financial side of his dreams in graduate school, through a "master of engineering management" degree that combines science with entrepreneurship.

Striking out on his own

For that, he and his well-worn mountain bike will leave home for the first time, as graduates of his mom's Nederland loft. Ryan chose to live at home all five years of CU, in part because of his age, in part because of the dorm expense.

"My mom was so supportive, and I really needed that. And she was respectful of my privacy," Kramer said. "Plus, all my friends drink like crazy, and I don't drink at all. Sophomore year, we'd put in 80 to 90 hours a week, and they still found time to drink."

After Ryan finally settled on USC in the last two weeks before graduation, relief and sadness took their turns in the Kramer household. Wendy Kramer felt the pending reality of being an empty-nester single mom.

But she also recalled the words of her son's IQ tester, back when Ryan was 6. She was handed the high score, a box of Kleenex, and two warnings: Ryan and many gifted students like him might not be straight-A students, because they are so restless.

Ryan leaves CU with a 3.0 GPA.

And, the tester suggested, Ryan might not truly fit in until he reached graduate school.

"Now I see what she meant," Wendy said. "The gap is just about closed now. Even more now, he will find his people."

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Related news

Registry brings together half-siblings.

Somewhere out there, a middle-age man with a high sperm count will eventually have 120 graduation cards to prepare.

The clearinghouse website established by Wendy and Ryan Kramer, the Donor Sibling Registry, allows the offspring of anonymous sperm banks to type in their donor's medical file number and meet willing half-siblings. Ryan has met a half-dozen of his, all half-sisters; the DNA siblings' ages this summer will be 18, 17, 16, 15, 14, 13 and 12. Ryan thinks that he has at least 20 overall from the donor biological father he has now met in person. He hopes for a "brother" someday, though he's not holding his breath.

But there is even harder- working sperm out there. One donor number on the website matches with 120 offspring, Wendy Kramer said. That is the clubhouse leader among the 6,000 people who have used the website to find DNA relatives around the world.

The Kramers and some sociologists argue for more regulation in the sperm and egg donation field. At the very least, they say, banks should place a cap on the number of live births from one donor, at perhaps 10 families.