

# From Algorithms to Actuarial Dreams

Sam Castillo sat in the dimly lit corner of a bustling coffee shop, the hum of conversation blending with the hiss of the espresso machine. He was deeply engrossed in his laptop, crafting responses for a job application to Milliman, a leading actuarial firm. Sam's journey was anything but ordinary; it was a story of ambition, setbacks, and relentless pursuit of dreams.

Sam's inbox chimed with a new message. Alena, a senior talent acquisition consultant at Milliman, had responded to his application. Her email was crisp and professional, outlining a series of questions meant to gauge his experience and skills. Sam's eyes scanned the list, his mind racing through memories of past projects and late-night coding sessions.

"Describe your reserving experience (lines of business, primary/reinsurance, etc.)," the first question read. Sam's thoughts drifted back to his time at PassMyExam, a startup he had poured his heart into. The office had been a modest space, filled with the smell of fresh coffee and the hum of computers. There, Sam had modeled claims for various lines of business, grappling with the complexities of coverage modifications, skewed distributions, and large losses. His work was a blend of art and science, creating predictive models from real-life case studies, each revision a testament to his dedication and the peer-reviewed rigor of his methods.

He remembered the thrill of building the Curve Group Health model at Milliman IntelliScript, where he had leveraged machine learning to unearth insights buried deep within the data. The models he developed improved the richness of diagnostic data and predicted claim frequencies and severities, essential for estimating reserves. It was a project that tested his limits, with marathon coding sessions and intricate cross-validations, but the results had been worth every sleepless night.

Sam's fingers danced over the keyboard as he detailed his experience, painting a vivid picture of his journey. He described the commercial tools he had mastered: Curve GH, Arius, Milliman Mind, Res Q, Emblem, and Radar. Each tool was a chapter in his story, filled with challenges and triumphs. Arius, with its complex macros and customizable features, had been a particularly demanding teacher, yet Sam had learned to navigate its intricacies with finesse.

He recounted his role at Willis Towers Watson, where he employed traditional reserving methods—chain ladder, cape cod, Bornhuetter-Ferguson—while also pioneering individual claim reserving through machine learning. His work on Loyalty Advisor, a SaaS product for

customer loyalty programs, was a blend of technical prowess and client consultation, each project pushing him to innovate and excel.

As Sam crafted his responses, he could hear the echoes of past projects—tax reporting software at Expedia, web scraping tools for European Union data exchange, and a spreadsheet solution for tracking new properties on Expedia’s platform. Each project was a testament to his adaptability and technical acumen, qualities that he believed would make him a valuable asset to Milliman.

Alena’s next email broke his reverie, proposing a meeting to discuss his application further. The timing was tight, but Sam was determined. He replied quickly, his excitement palpable. The next day, he found himself back at his desk, preparing for the call that could change his career trajectory.

The interview went well, and Sam felt a surge of confidence. He followed up with an email, highlighting how the position aligned perfectly with his career interests and skill set. He referenced successful entrepreneurs like Richard Branson and Arianna Huffington, drawing parallels to his own journey of navigating industries without direct experience but achieving remarkable success nonetheless.

In a final push, Sam mentioned salary expectations, backed by recent research and industry standards. He knew his worth and wasn’t afraid to advocate for it. As he hit send on his email, he felt a wave of anticipation wash over him.

Days turned into weeks, and Sam continued to navigate his current job while awaiting a response from Milliman. He poured his heart into every project, knowing that his dedication and passion were the real keys to success.

One afternoon, as Sam was reviewing a particularly complex dataset, his phone buzzed. It was an email from Alena. His heart pounded as he opened it, scanning the text. They wanted him for a second interview. A smile spread across his face. His dream of becoming an actuary, the goal he had set so many years ago, was finally within reach.

In the end, it wasn’t just about the job. It was about the journey, the sleepless nights, the relentless pursuit of knowledge, and the unwavering belief in his abilities. Sam Castillo was ready to step into his new role, armed with experience, passion, and the drive to make a difference. His story was just beginning, a tale of algorithms and actuarial dreams, waiting to unfold.

As Sam sat by his phone, waiting anxiously for Alena’s call, he couldn’t help but feel a mix of hope and dread. He had put everything he had into his application and interview, laying

bare his experiences, his ambitions, and his dreams. When the phone finally rang, he took a deep breath and answered.

“Hi Sam, it’s Alena,” came the familiar voice on the other end. “Thank you so much for your time and the effort you put into your application and interview. You’ve truly impressed us with your skills and experiences.”

Sam felt a flicker of hope.

“However,” Alena continued, her tone softening, “after careful consideration, Howard, our hiring manager, has decided to move forward with a candidate who already has their actuarial credentials. The main reason is that we need someone who can deeply understand the customer base for the software we’re building.”

The words hit Sam like a punch to the gut. He listened as Alena expressed her regret and offered encouragement for his future endeavors, but his mind was already swirling with disappointment. He thanked her for the opportunity and hung up, his heart heavy.

Sam sat in silence for a long while, staring at his computer screen. The dream he had been chasing seemed to slip further away. He had always known the importance of actuarial credentials, but to hear it spelled out as the reason for his rejection was a tough pill to swallow.

Despite the setback, Sam knew this wasn’t the end of his journey. Heartbroken but not defeated, he resolved to double down on his studies and finally earn the credentials that had eluded him. He reminded himself of the resilience and determination that had brought him this far. His journey was far from over, and every setback was just a setup for a stronger comeback.

With renewed determination, Sam reopened his study materials, knowing that one day, he would achieve his dream and return to the actuarial world stronger and more prepared than ever. His story would continue, fueled by the lessons learned and the unyielding spirit that defined him.