

**Cyber Security Sam™**

**e-Book 3.4**

**Spring Break**



**A**

**JOHNNY SECURITY SEED®**

**Book By:**

**Rich Owen**

There are Sheep, Wolves, and Sheepdogs.

Join Sam and the other Sheepdogs  
who are focused on helping the Sheep  
avoid the cyber-attacks of the Wolves.

## Preface

This book is about the continuing adventures of Cyber Security Sam and his efforts of working with the authorities to solve cybercrime. All names in these stories are made up. With one exception, Granddad, there is no relationship between the characters in the books and real people. Some places are real, like Mac and Bob's. Some places are variations on existing places like S3 is based on Andrew Lewis High School (now a Middle School).

The technology discussed in this book is very close to real. The cyber events mentioned here are based on real events. You will be exposed to technical terms such as OPSSEC (Operations Security), SIGINT (Signals Intelligence), Cozy Bear, Dark Halo (aka UNC2452) (these are code names for hacker groups, APT (Advanced Persistent Threat – continual attack), RAT (Remote Access Trojan – a way to enter your computer without you knowing it) and more. First of all, read this book as a fun adventure story. Then go back and research the events, technologies, and organizations mentioned to learn the details behind the hacks. There are many opportunities to expand your knowledge of computers and cyber-security in these books.

The purpose of this series of books is to introduce people to the world of cyber-security in hopes that we can continue to grow the team of people who fight the cyber-criminal. This profession is a hot field that pays above normal IT Salaries. Currently, there is negative unemployment a projected 10+ year shortage of front-line professionals in this field.

This particular e-book is intended to continue the story of Cyber Security Sam. It takes place after book 3, "Rosie I'm Home", and before book 4, "I'm Back". In this book, you will hear of Sam's past adventures, but the main purpose is to address the main questions asked in the Free JOHNNY SECURITY SEED® presentations that have been provided to schools.

This book, and the entire Cyber Security Sam <sup>TM</sup> series, is dedicated to my grandchildren and to all who have an interest in protecting information.

I hope you enjoy the journey.

### Wednesday of Spring Break

Sam was moving swiftly towards the outdoor courtyard at West Salem Mall. In his typical fashion, he was running late. As he entered the back of the courtyard, sitting around the tables were Cole, Amanda, Jack, Peyton, Jim, and Billie Jean. As Sam approached, Billie Jean came running to him and gave him a huge hug. She still believed that just weeks ago, because of his actions, she avoided being kidnapped. Amanda, like Sam, is a freshman. Cole, Amanda's boyfriend, is a junior at S3. That is what we call Salem Smart School. Our school has sensors for everything. The scheduling of classes is also unique. It provides a tailored learning experience for each student. Jack and Peyton are both sophomores. Jack is more interested in military and mechanics, where Peyton is all about collecting and analyzing data. Kim was unable to make it. Her parents have her working in the family nail salon over the break. Jim is a freshman who just transferred into the school from Chad, Africa.

It was a bit cold to order ice cream from the vendor in the courtyard, so they were mainly just sitting around and talking.

"Hey, look who made it after all," said Amanda, as she sees Bobby walk into the courtyard.

Bobby is a senior and captain of the S3 basketball team. His girlfriend, Frederica, was a junior at S3 until she was arrested for some timing irregularities in the timing of the school computers.

"Hey, guys. Frederica had to work. I decided that now that I know that she will not be going to prison that maybe I should join you," said Bobby.

Peyton looking at his phone says, "What Wi-Fi are you connected to? I am on "yard04". I have never noticed that address here before."

Several of them pick up their phones. Some are not on Wi-Fi at all. Some are connected to Comcast, the local provider. Cole, Amanda, and Sam notice that they are connected to “yard04”.

Sam says, “That looks interesting. It is not password protected and not encrypted. If I had my computer, I could find out more about it.”

“I have my notebook in the car. I’ll get it. I can’t wait to see Mr. Cyber Security Sam in action,” said Cole with a grin.

As Cole heads to his car, known as the Bird of Prey, he was thinking that he was interested in seeing what Sam would do. Sam had already helped to prevent a home invasion at Cole’s house.

Sam uses Cole’s computer and notices when connected to that Wi-Fi that he can see a network of several computers, including ones called, Accounting & Inventory.

“This just does not seem right,” thought Sam.

His friends kid him about his connection with the FBI and that maybe he should give them a call. They have a program called “See Something Say Something”. Of course with all that Sam has done with the FBI, he had Special Agent (SA) Stanley’s number on his phone, so he gives him a call. SA Stanley answers the call but explains that he is tied up in the Computer Machinery case, which is taking all of his time. He mentions that he may have to involve John Clark. The mention of John Clark is his hint to Sam that it may be espionage as Mr. Clark works for the CIA. SA Stanley says that he will send Agent Fauth over to take a look. He lives close by. Sam agrees to wait for Agent Fauth to arrive.

Agent Fauth arrives and introduces himself. Sam shows him the Wi-Fi hot spots available on his phone and points out yard04. Sam then uses Cole’s computer to show Agent Fauth what is

connected to that Wi-Fi. He sees a collection of cell phones and a network of computers. Some were labeled Accounting and Inventory. Agent Fauth tells Sam that he did the right thing about reporting this and not going any deeper. If Sam had tried to log on to one of those other systems and got in he could violate federal law 18 USC 1030. Sam discovered what was commonly done by bad guys looking for systems to attack. They just turn their computer on and drive down the street looking for open and unencrypted Wi-Fi connections like this. It is called War Driving. There was also a technique called War Dialing. The bad guys would just call phone numbers looking for a modem connected to a computer to answer. Then, if a modem answered, the bad guys would try to log onto that computer. Agent Fauth thanks Sam and his friends for bringing this to his attention.

Sam walks with Agent Fauth back to his car. He notices that Agent Fauth is in his early to mid-20s.

“How long have you been an FBI Agent?” asks Sam.

“I just graduated two months ago from the FBI Academy at Quantico.”

“How did you get into this line of work?” asks Sam.

“In my case, I got my degree in Criminal Justice with a minor in Computer Security. I got lucky and got accepted into the FBI. Of course, it did not hurt that I had good grades and did some work with computers in my spare time. You know Sam, you don’t have to be in the FBI or Secret Service to make an impact in fighting cybercrime. In fact, from what I hear about you in the office you are already making an impact,” said Agent Fauth.

“What should I do to get better and learn more?” asks Sam.

“Well, this could take a while. Let’s grab a seat at that picnic table and talk. You may want to take some notes. It is interesting that you asked now. I just got this today”, as Agent Fauth showed Sam his phone.



DENVER (KDVR) — The Federal Bureau of Investigation Denver is offering new hands-on training to students interested in learning the latest on cybersecurity from members of the FBI themselves.

Cybersecurity Teen Bootcamps will be hosted at the [FBI office in the Central Park area of Denver](#). During each CSTB, attendees will hear presentations on cyber security/privacy and have training with a MacBook Pro, virtual

As they sat down, Sam opened his phone and started taking notes:



## **How to Become a Cyber Security Professional**

The profession is new. People in the field today have come from all professions and backgrounds. Some people were already in business and starting studying cybersecurity on their own. Some people started in the military, where they received good technical training. Some people started on the service desk in companies and then took extra training to get into cybersecurity. Of course, some people went to college to earn Engineering/Computer Science degrees.

In Cyber Security there are two areas. There are the technical people who can develop products and fix technical problems and there are the analysts who can identify potential problems, define the risks and recommend solutions. The technical people may have stepped into cybersecurity because they learned how computers work from hands-on experience or training. On top of that, they learned how to configure systems and applications to protect data based on the added cybersecurity training that they gained over the years. The technical area is also made up of people who went to college. They learned how computers, applications, and networks work so that they can design and build the cybersecurity solutions of tomorrow.

Analysts may have gone to college and studied computer security or they may have come from the business and learned cybersecurity afterward. Most accounting firms hire college graduates to be computer security auditors. Security Analysts in companies not only help to ensure compliance with cybersecurity standards but also define the processes and procedures that the company will use in its cybersecurity program.

Most major companies have a Chief Information Security Officer (CISO). This person generally understands the entire spectrum of cybersecurity but their focus is to use that knowledge to protect the business's information.

Besides the military, college, and technical schools there are other resources to learn about cybersecurity. There are many cybersecurity blogs on information security or cybersecurity. There are also organizations where cybersecurity professionals meet and share ideas. Some of them have special rates for students. Examples of these are the [Information Systems Security Association](#) (ISSA), the [International Information System Security Certification Consortium, Inc.](#) (“(ISC)²”), and the [Information Security Audit and Control Association](#) (ISACA). Some areas also have other information security organizations. Many of these organizations have monthly or quarterly meetings. These are great places to get an idea of what part of information security interests you. Discussing cybersecurity issues with your peers is a great way to learn what is happening and how others are dealing with the issues. ISSA has also created a Cyber Security Career Life Cycle to help you decide what the next step is in your career progression. All of these organizations also have job boards, but the most beneficial part of each organization is meeting professionals doing the job. Seek these people out. When you have one or more that you like, ask them for advice. Mentorship is a great benefit that helps you grow quicker. Now that we are getting beyond the pandemic many of these organizations are again having in-person meetings. Virtual meetings are great for learning information, but a person helping guide your career is even better.

Being curious, with a positive attitude, and the use critical thinking seems to be a winning combination. Critical thinking is the ability to analyze a set of facts from multiple avenues and multiple positions to reach a conclusion. That conclusion helps to see how a bad actor can utilize the existing infrastructure to do unintended things (and malicious) things. The more knowledge and experience that you have enhances your critical thinking ability.

### **Lunch**

“Sam, it appears that your friends are heading off somewhere, and I need to get back to the office,” said Agent Fauth.

“Thank you so much for telling me more about what I can do to get into the field of Cyber Security.”

“You are entirely welcome, Sam. I will get back to you if anything comes of my investigation into this Wi-Fi that you found.”

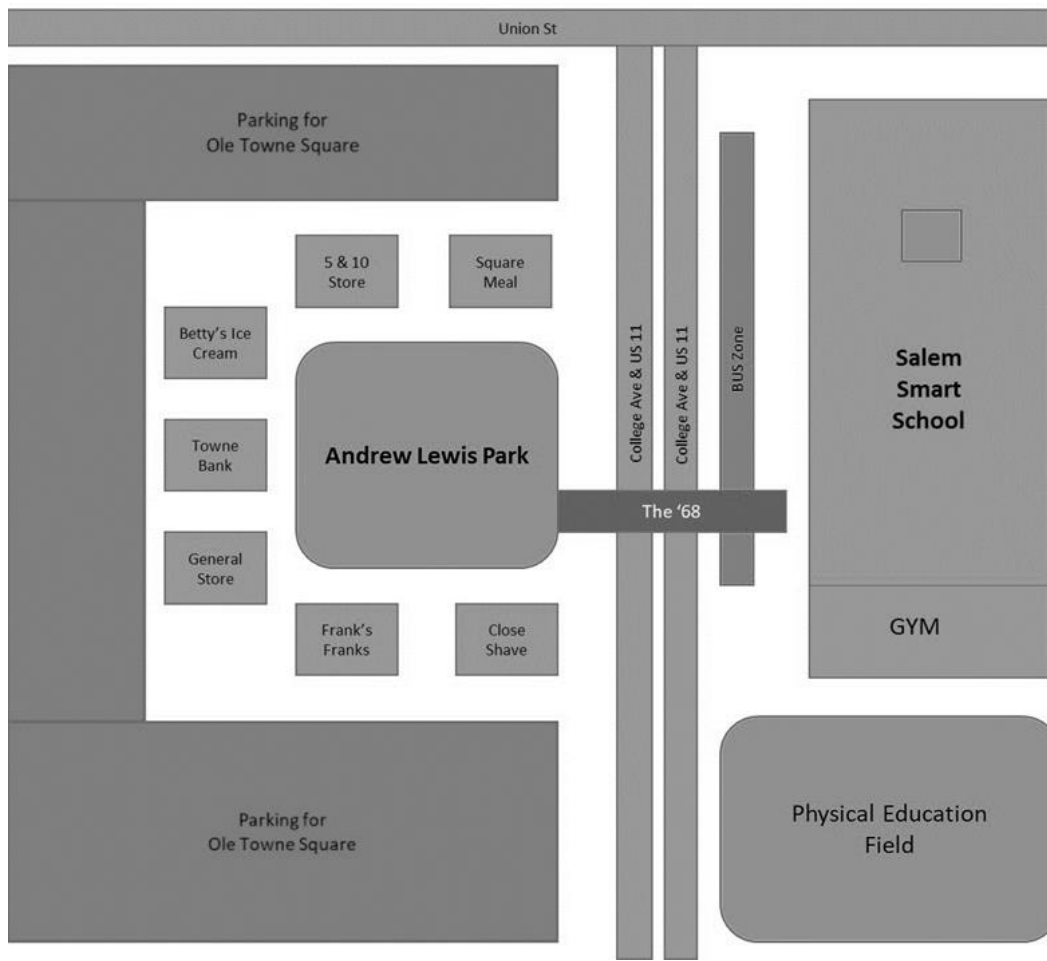
“Ok,” said Sam as he ran to catch up with his friends headed to the hot dog stand across the street.

### **Back to School**

Now that Spring Break is over, the focus is on how to get through the rest of the year and focus on what everyone was going to do during the summer. As Sam ran into his friends throughout the day they asked if he had any update from Agent Fauth. Kim was especially interested, as she also had plans of getting into a summer Cyber Camp.

### Weeks later in History Class

I am so glad that the elections are over. Now we can get back to real history, like the American Revolution. Ms. Mertz is talking about the battle of Yorktown. It is kind of cool as Sam had visited the battlegrounds two summers ago on a school trip. Suddenly Sam gets a message on his phone. It is from Agent Fauth. He was calling to see if Sam could join him and a friend for dinner after school at his favorite restaurant. Sam knew right away that he was talking about “Mac & Bob’s” on Main Street. Sam agrees. Agent Fauth says that he will pick Sam up after school in the parking lot behind the “5 & 10” in Ole Towne Square, which is just across the street from the high school.



### Ole Towne Square

### **Mac & Bob's**

After school, Sam used the '68 bridge to get across College Ave. and enter Ole Towne Square. In the middle of the park was a statue of General Andrew Lewis, a Brigadier General of the American Revolutionary War. Around the square were buildings from the early to mid-1950s. In the right corner of the park was a store called the "5 & 10" although nothing in the store could be bought for those prices.

Sam went to the parking lot behind the "5 & 10". Agent Fauth was waiting for him in what was obviously a government vehicle. It was a generic sedan with no hubcaps on the wheels and government plates. Sam was almost embarrassed that Agent Fauth had to drive the car. Sam walked over to the car and got into the passenger seat.

"Good afternoon, sir," said Sam.

"Hi, Sam. I am sorry that I have to pick you up in this car. My car is in the shop and I had to check this car out of the FBI motor pool. They call it the beast. No one likes to drive it, but the owner of "Willie's Woods" called this morning and wanted to have dinner with us at "Mac & Bob's."

We headed off to the restaurant. "Willie's Woods is the owner of the Wi-Fi that you and your friend discovered. I would prefer to hold off discussing that until we get to the restaurant. You expressed an interest in getting into the field. I believe that Special Agent Stanley mentioned InfraGard to you. You have to be at least 18 or 21 to join as there is a background check. InfraGard is associated with the FBI and is focused on protecting our critical infrastructures. The internet, as well as air, water, and electricity, are parts of that infrastructure."

"Yes, he and Special Agent Andrews of the Secret Service mentioned that to me," said Sam.

As it was still early they were able to get parking close to the front of the restaurant and went inside. The hostess asked how many were in the party. Agent Fauth said that they were expecting one more, Mr. Bobby Joe Harrison. They asked to be seated in the rear of the restaurant. As the hostess took them to their table, she mentioned that she would bring Bobby Joe to them when he arrived. She knew him well, not only because he was the owner of Willie's Woods, but because was a frequent and valued customer of Mac & Bob's. The waiter came by and took our drink orders. Agent Fauth got water with lemon and Sam got his usual sweet tea. Before drinks arrived the hostess returned to the table with a man who appeared to be in his early 30's.

"Gentlemen, this is Mr. Harrison," she said.

Agent Fauth and Sam stood up. Agent Fauth said, "Good afternoon Mr. Harrison. I am Agent Fauth of the FBI. We spoke on the phone. This is Samuel Dean, the young man that I was telling you about."

"Good afternoon gentlemen, it is a pleasure to meet you both. Thank you for agreeing to meet me for dinner. Please call me Bobby Joe. Most people in the Salem area know me by that. Mr. Harrison was my Dad, the founder of Willie's Woods," said Bobby Joe.

Both Agent Fauth and Sam said ok. The waiter returned with their drinks and took their order for dinner and Bobby Joe's drink order.

"Sam, I understand that you discovered one of the Wi-Fi connections of my business?"

"Well, er... my friends and I were at the mall, and we noticed that it was an open connection to the internet. In checking it out to see if it was safe for my friends to use, it appeared to me to provide more connectivity into your business than you intended. The FBI has

a ‘See Something Say Something’ program, so I gave them a call. I have worked with them before. I thought that they would like to check it out,” said Sam.

“Sam, we put those extra connections in to make our business more efficient. Now when we are taking inventory, especially in our large lumber yard, we don’t have to keep coming back to the main building to re-enter the data. Does that make sense to you?” asked Bobby Joe.

Sam and Agent Fauth sat there with a bit of a shocked look on their face. Eventually, Sam said, “Yes, sir. That makes sense.”

“Based on the call from Agent Fauth, I contacted a cybersecurity firm. They came in and evaluated how I was protecting my company and its data. In their words, with those new connections and the way that my systems are connected, my company was at serious risk of being hacked. I was one guessed password away from being out of business. On top of the easy access onto my network, my systems are all connected on one flat network which means that if someone gets on to one of my systems they can easily get onto them all. They referred to a hack of Sony Pictures several years ago. The reason that it took so long for me to get in touch with you is that the cybersecurity firm has now worked with my IT company and put something called a firewall in place and added controls to better protect my company. The cybersecurity company will also be monitoring network activity to see if someone is trying to break in. They did that while keeping the Wi-Fi connections for the convenience of my employees. You will still be able to use it when you are at the mall. The main difference is that now you will have a very difficult time vs. easy time getting into my company’s systems. The bottom line here is that you, Sam, saved my company. I am very thankful that you and the FBI brought this to my attention.”

“Sir, I wasn’t looking to find issues. My friends and I just happened upon your Wi-Fi connection. I thought it seemed strange that I could see all of your business systems while on a



computer in the mall. I am glad that we were able to help. I am still learning about computers and how they work,” said Sam.

“What do you plan to do with your talent Sam?” asked Bobby Joe.

“I am not sure yet. I am just finishing up my freshman year. At the moment, I am thinking of going to VA Tech and studying computer science with a specialization in cybersecurity.”

“Sam, I want to encourage you. In fact, with your permission, I will have my accountant get in touch with your parents. I would like to set up a \$500 scholarship for you. It is not much, but hopefully, by the time you get to VA Tech, it will be worth more. Would that be ok with you?”

“Sir, I am honored,” said Sam.

Well, I can’t do anything to reward Agent Fauth, other than dinner, but I appreciate the two of you for saving my company.

“Sam, now that I think of it, I owe you more than just a small scholarship. How about I give you a part-time job? What if you come in once a week for an hour or so to talk with my employees about the latest happenings in cybersecurity? I understand that there are many ways that they can be the cause of cybersecurity problems. We can also schedule those visits when my IT people are there as well so that they can explain how we have things configured. During the summer, if you like we can make it a full-time summer job. Granted, the summer job is a hot and tough job of helping customers and stocking shelves, but it will be a chance for you to learn the business. What do you think about that, Sam?”

“Wow, sir! I am blown away. Let me check with my parents and I will get back to you later this week, but I think that is an excellent opportunity. Thank you!” said Sam.

“Bobby Joe, I think that is a great offer, and I suspect that you will benefit from having Sam around. He is known by his friends as Cyber Security Sam because he just finds things that need to be corrected or avoided. I think that this will be an excellent opportunity for Sam as well,” said Agent Fauth.

The waiter showed up with their dinner. Of course, Sam had his Chicken Club sandwich. Agent Fauth had a small steak. Bobby Joe had the Chicken Parmesan dinner. They started eating while sharing some of their backgrounds. It appeared that Bobby Joe had inherited the business from his Dad. Agent Fauth discussed some of the training that he received in the FBI academy. He also mentioned some of the recent activities of Sam.

As they finished their meals, Sam said, “I am very interested in your offer, but you should know that I have applied to attend the Cyber Security Camp in Roanoke this summer. It is like summer school.”

“No problem, Sam, I can work around that. We will make a schedule that works for you. You saved my business. I am interested in what I can do to help you grow. Talk to your parents and let me know what we can work out,” said Bobby Joe.

Everyone finished eating. Bobby Joe paid the bill and left a nice tip. Sam agreed to speak with his parents and get back to Bobby Joe. Agent Fauth gave Sam a ride home.

### **Special Acknowledgements**

Many people helped to make this possible. I especially want to thank the following fellow cybersecurity professionals who reviewed and commented on this book.

#### **Debra Christofferson, CISSP, CISM, CCSK**

Background: Right out of the gate, Debbie would like to mention that she was a pregnant teenager who got married and dropped out of high school as a junior. When she was 19, she was working in a factory as an assembly line worker, and the Human Resources manager at this small company encouraged her to return to school. After getting her GED through the local community college, she started college classes, one or two a semester. As a full-time working Mom with childcare and a working (also) teenage spouse, this was very difficult. The company reimbursed her 100% for books and tuition if she received an A or a B, but only 50% for a C, and zero otherwise. Because she started to attend night school classes, never missed work, and excelled at what she did, she got an opportunity to work in Information Technology and started a job in the front office as a junior IT tech. Most of her colleagues didn't bother to apply, because it was "nights"—Noon-8:30pm. Flexibility helped her land the job, and excel. When a work colleague went out on medical leave she had to step up her game. She received extra training and moved to a 5 am-1:30 pm shift. She outperformed and moved right into long-term Information Technology Operations roles, and then into Cyber Security. That same HR Manager highly recommended her to an IT hiring manager at Intel, which is really where her career took off, and where she got the chance to help startup cybersecurity in its infancy. Fast forward today, she would tell you that hard work, being fully present, and always working to learn and be more are

what drove her to excel and develop her cybersecurity roles over the years. She found her niche as a highly respected Cyber Security Professional.

Debbie's BIO:

Debbie has 25 + years of experience in cybersecurity management. She has been a Fortune 500 Enterprise-wide Information Security Manager with experience across the US, Europe, and Asia. She is a proven strategic security leader and consultant with broad comprehensive security and risk management experience. Her certifications include CISSP, CISM, CCSK (cloud security). In 2018, Debbie published the book "Women in Security", which showcases 14 women's achievements as well as the opportunities and trends of the time. Debbie facilitated CISM certification exam prep workshops for 10+ years. She speaks and writes on cybersecurity topics and women in security. She leads security and IT education events. Debbie has been an International Board Director for 10 years and is a Distinguished Fellow for ISSA—the Information Systems Security Association. She has also chaired the board's CISO Advisory Council for the CISO Executive Forum for 8 years. Debbie is co-founder of the local Cloud Security Alliance chapter. She hosted two ATW Summits for women in technology and Co-Chairs ISSA's Women in Security group. She currently also serves on the ISC2 Phoenix Board of Directors.

### **Kim L. Jones**

Kim, West Point graduate, is a 30+ year intelligence, security, and risk management professional with expertise in information security strategy; governance & compliance; security operations; and risk management. Mr. Jones is a former Chief Information Security Officer who

has built, operated, and/or managed information security programs within the financial services, defense, healthcare, manufacturing, and business outsourcing industries.

**Randall Friezsche**

Randall is the CISO for Denver Health and Hospital Authority. He is a Distinguished Fellow with the ISSA, teaches cybersecurity risk management for Harvard University, and was recently inducted into Security Current's Top 100 CISO list.

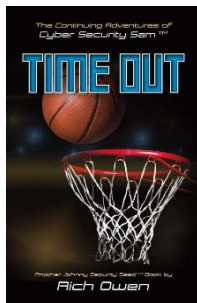
**Todd Bell**

Todd is a Global Cybersecurity expert in the field of technology transformations, cybersecurity remediation, Boards, and a resident CISO for the Fortune 500. Currently CISO & Executive Director for a Phoenix Healthcare organization.

## Other Books by Rich Owen

### About Cyber Security Sam™

This is the first supplemental e-book in the Cyber Security Sam™ series. The timing of this book is during or right after the book titled “Rosie I’m Home” and before “I’m Back”. The focus of these books is to inform users of our cyber world about the dangers and responsibilities that come with the increased flow of information. These books are available in print and **e-book** from the publisher Book Baby (<https://Store.BookBaby.com>). By using the Bookbaby coupon, JSS1, you get a 10% discount on printed books. These books are also available places that books are sold.

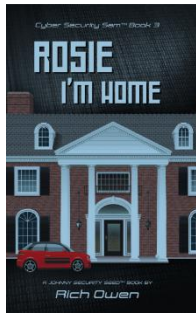


“The Continuing Adventures of Cyber Security Sam - Time Out” is the first in the Cyber Security Sam™ series of books about a high student who ends up working with the FBI to solve cyber-crime. Sam investigates timing issues with the school computer and helps the FBI identify the suspect.



As Salem prepares for its annual festival, the teachers are not getting paid because of an apparent computer hack. Then after the festival, all of the money collected for the foundation is robbed. At one point, the main suspect is a ghost, but Sam steps in with the help of his friends and helps the U.S. Secret

Service identify the prime suspect.



With a SWAT takedown and other issues addressed, previous suspects are being brought to justice. Meanwhile, it appears that Sam is in his “See Something Say Something” mode and helps to avoid a home invasion and potential kidnapping. He also gets the attention of the CIA as they help the FBI with a nation-state actor.

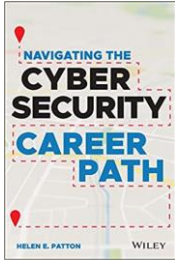
### **Books about Information Protection**



“Your Personal Information is at Risk: A Guide to Protecting Yourself” is a book about how your personal information is at risk each time you use a computer or smartphone. This book contains real examples of phone scams and bad emails along with instructions on how to recognize them and what to do about them. This book could Save You Money and heartache!

## Navigating the Cybersecurity Career Path

**Land the perfect cybersecurity role—and move up the ladder—with this insightful resource**



Finding the right position in cybersecurity is challenging. Being successful in the profession takes a lot of work. And becoming a cybersecurity leader responsible for a security team is even more difficult.

In *Navigating the Cybersecurity Career Path*, decorated Chief Information Security Officer Helen Patton delivers a practical and insightful discussion designed to assist aspiring cybersecurity professionals entering the industry and help those already in the industry advance their careers and lead their first security teams. In this book, readers will find:

- Explanations of why and how the cybersecurity industry is unique and how to use this knowledge to succeed
- Discussions of how to progress from an entry-level position in the industry to a position leading security teams and programs
- Advice for every stage of the cybersecurity career arc
- Instructions on how to move from single contributor to team leader, and how to build a security program from scratch
- Guidance on how to apply the insights included in this book to the reader's own situation and where to look for personalized help
- A unique perspective based on the personal experiences of a cybersecurity leader with an extensive security background

Perfect for aspiring and practicing cybersecurity professionals at any level of their career, *Navigating the Cybersecurity Career Path* is an essential, one-stop resource that includes everything readers need to know about thriving in the cybersecurity industry.



### **Complimentary On-Line Teaching Presentations**

Johnny Security Seed (<https://JohnnySecuritySeed.com>) offers free presentations to schools and civic organizations. At the present there are 3 presentations:

1. Security and Privacy – Intended for early or inexperienced users of computers. This presentation contains material similar to that in the book, “Your Personal Information is at Risk.” There is a strong emphasis on knowing with whom you are communicating and being aware of issues with social media.
2. The Evolution of Computers – Aimed at high school computer science students. It discusses the evolution of the PC or Mainframe to the Cloud with some stories about Johnson Space Center.

For more information please access the Johnny Security Seed, LLC web page at

[JohnnySecuritySeed.com](https://JohnnySecuritySeed.com).

### About the Author

Rich Owen began his cyber security adventure in the in the Army Security Agency (ASA). The primary customer of the ASA was the National Security Agency (NSA). In the ASA he performed the duties as an Electronic Warfare (EW)/Electronic Counter Measures (ECM) systems repair supervisor.

With B.S. degrees in Management and Computer Science from the University of Maryland.

He developed several information security programs to include:

Mission Operations, Johnson Space Center, NASA <sup>1</sup>  
Texas, Office of the Attorney General  
Early Warning Services  
American Traffic Solutions  
Cable One

Along the way, Rich was awarded the "Silver Snoopy" by the astronauts for the program that he created to protect the information and computer systems upon which their lives depended. He and his team were given a Continuous Improvement Award by the NASA Administrator, for doing so and avoiding over \$25M in cost.

Rich has also contributed to the profession and information protection industry.<sup>2</sup> He contributed to the creation of many standards and solutions that we use today. Accomplishments include:

Harold F. Tipton Lifetime Achievement Award - (ISC)<sup>2 3</sup>  
Information Security Hall of Fame – ISSA <sup>4</sup>  
Past international President - ISSA  
Distinguished Fellow - ISSA  
Honor Roll - ISSA  
Fellow - Ponemon Institute <sup>5</sup>

Rich has the following certifications: CISSP, CIPT, CISM, CRISC, CPP, FAIR, ITIL, IAM/IEM, and DTM.

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<sup>1</sup> To most people Mission Operations at Johnson Space Center just sounds like just another government job, but they relate when I tell them that I worked for the real guy in the white vest, Gene Kranz, portrayed by Ed Harris in the movie Apollo 13.

<sup>2</sup> I am currently the principal architect of the Information Security Management Certificate Program that is being developed for a university in Texas.

<sup>3</sup> This is considered to be the highest personal award in the Cybersecurity profession.

<sup>4</sup> ISSA – Information Systems Security Association is the professional organization for cybersecurity professionals. It has been around since 1984.

<sup>5</sup> This is the organization that has tracked financial impact of cybercrime for over 30 years.