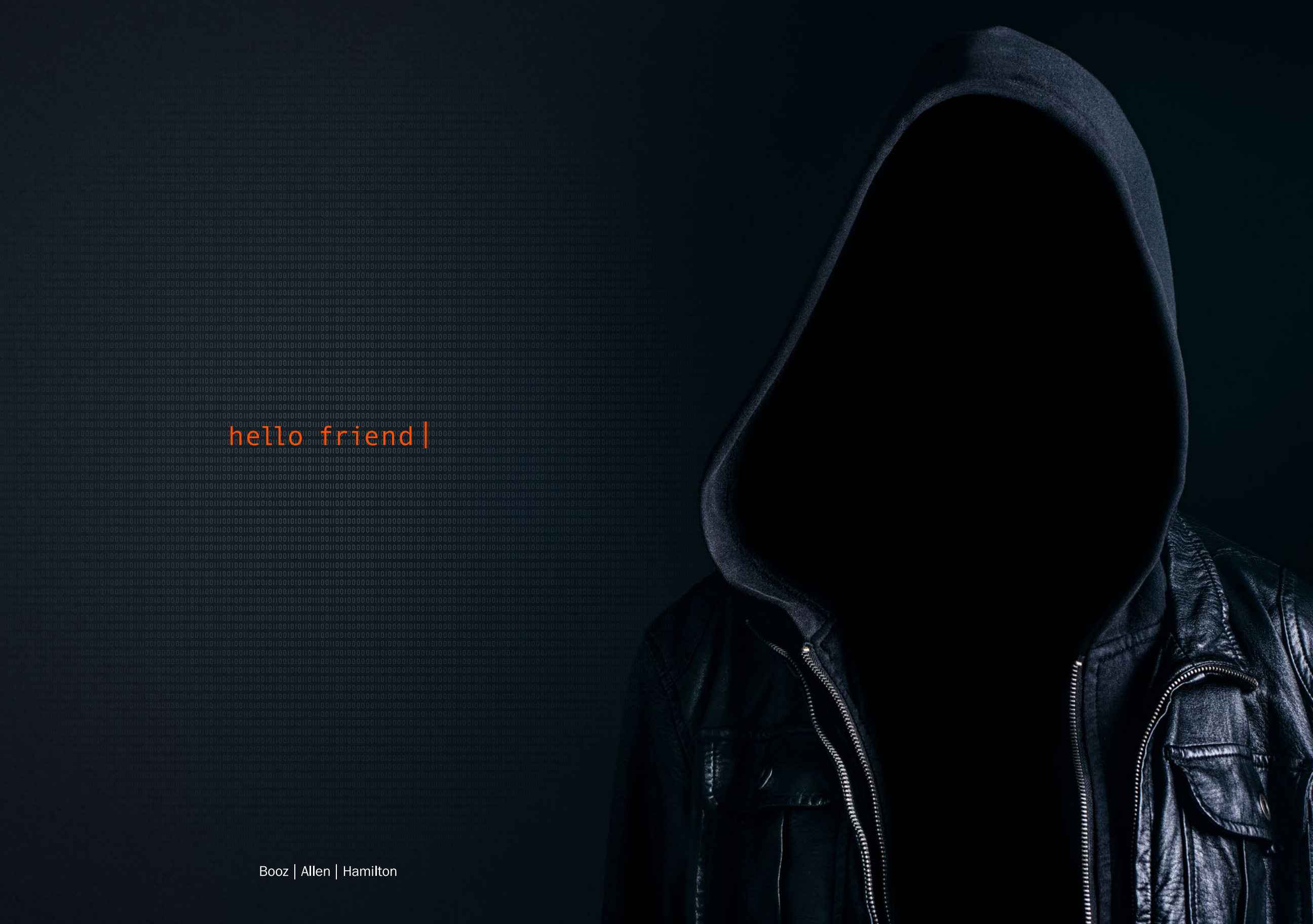
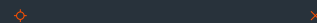




hello friend!

ANGIE MESSER |

EXECUTIVE VICE PRESIDENT .



HOMETOWN

MIAMI, FL

EDUCATION

ENGINEERING AND BUSINESS MANAGEMENT,
USMA WEST POINT

INDUSTRY EXPERTISE

CYBER/SOFTWARE/ENGINEERING/STARTUPS/
TECH SOLUTIONS/MANAGEMENT

COMMUNITY INVOLVEMENT

SUPPORTS UNDERSERVED HISPANIC COMMUNITIES/WOMEN IN STEM/SERVICE MEMBERS & FAMILIES, WOUNDED WARRIORS, AND VETERANS

HEROES

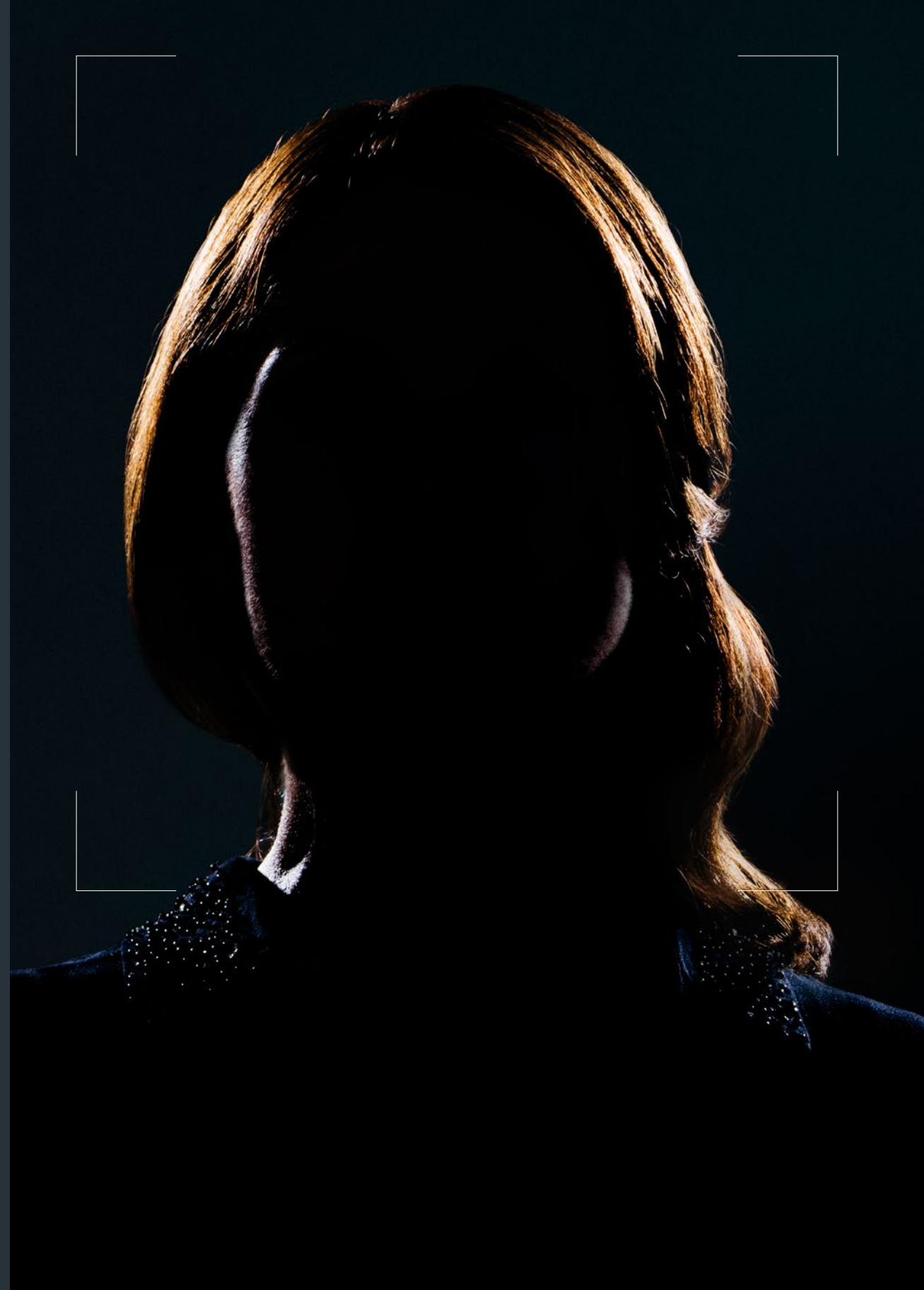
MY FATHER: HE TAUGHT ME SERVICE TO COUNTRY AND COMMUNITY; THE AVENGERS

TV SHOWS

BIG BANG THEORY/DINERS, DRIVE-INS, AND DIVES

HOBBIES

DANCING/RUNNING/CYCLING/TRAVELING



< At Booz Allen Hamilton,
we're consumed by the power of "why?"

Why do people come to work? For some, it may simply be the promise of a paycheck. But for others, it's the chance to excel in a purpose-driven environment alongside talented people excited to leave the world a better place than they found it.

During my nearly two decades at Booz Allen, I've been involved with a number of different projects, for different clients in different industries, to help pioneer new solutions and technologies. This experience, however, is not mine exclusively.

When Alexandra Heckler (Pg. 46) transitioned from her NASA client to work on vehicle cybersecurity issues, there were fewer than 10,000 entries on Google about her new subject. Twenty months later, there were 1.3 million, and pressing demands for safer solutions.

Booz Allen is both a place where you can move the world forward and make it a safer place to live.

We need that. Because the future can be uncertain. Nation-states can cripple their adversaries' power grids, and cyber criminals can use ransomware to hold organizations hostage with little more than code and persistence.

Our people live to prevent such havoc from ever occurring.

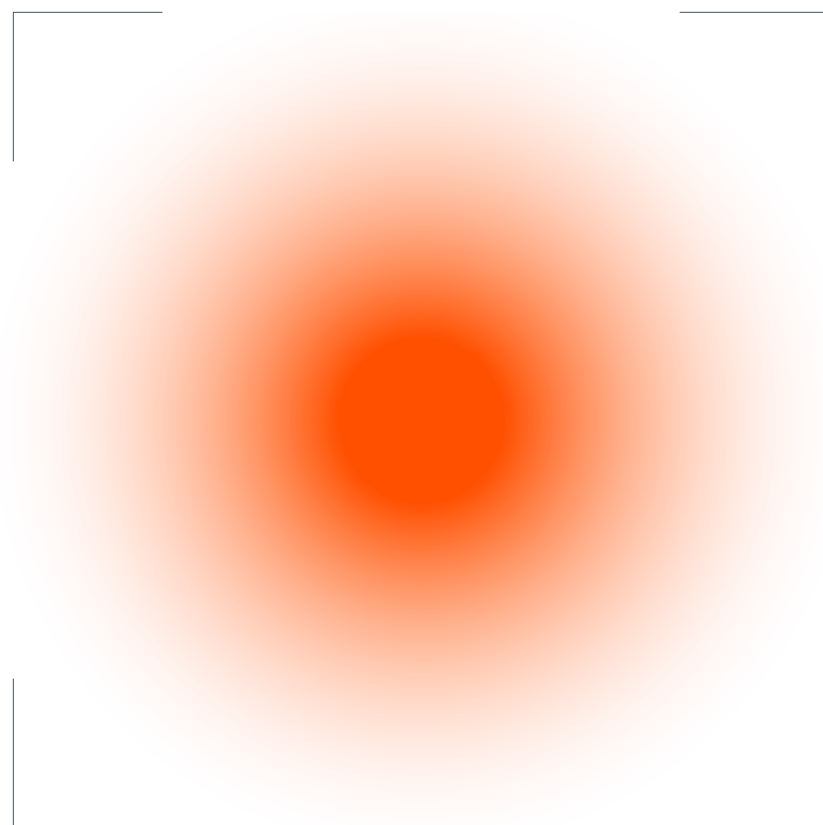
They protect vulnerable systems by deploying the same techcraft malicious hackers apply to exploit them (Pg. 10). They make sure the water in your tap is safe to drink by securing critical infrastructure (Pg. 16). They help industrial operators capture and analyze data from across connected devices to create powerful operational intelligence (Pg. 22). They make sure you can put gas in your car—a car that, one day, may drive you home autonomously.

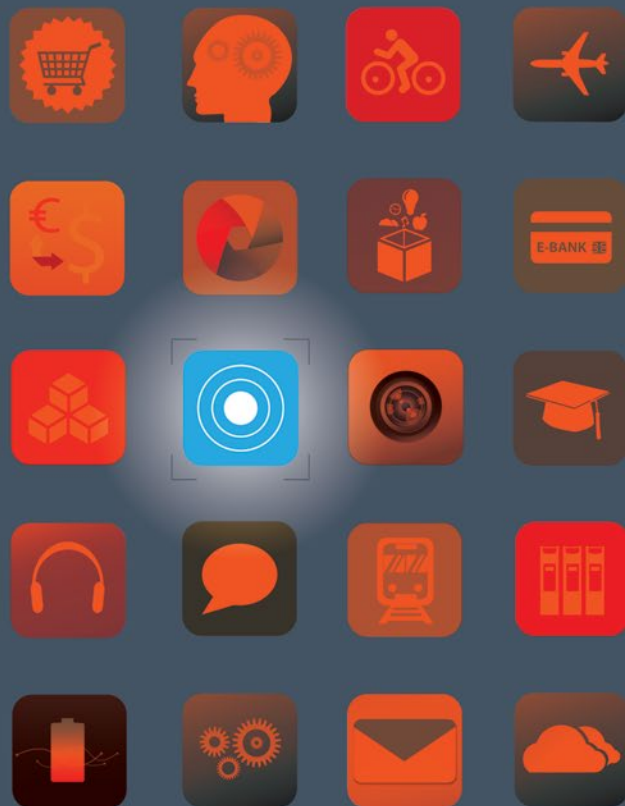
Booz Allen Cyber is in the business of protecting the everyday things, and in shaping what those things might be in the future.

We care about what we do. Because what we do matters.

If that excites you; if what you read in these pages are missions you want to be a part of; if you want to do good and give back to the communities on which we've built our way of life: join us. We can solve these challenges together. > □







BE THE HERO OUR DEVICES NEED

You know the truth: Most mobile apps are defenseless against hackers less virtuous than you. 75% of apps contain critical security vulnerabilities.

Bad guys are exploiting these holes. (You know that, too.)

Enter *AppCritique*. With it, we can detect, assess, and correct software flaws before an app ever hits the stores, or your enterprise mobile device.

It's just one of the ways we're helping to protect the world.

IMAGINE WHAT YOU COULD DO HERE BOOZALLEN.COM/CYBERCAREERS

A BETTER CONDUIT FOR REALLY BIG DATA

Deploying, integrating, and executing big data solutions isn't pretty. It's dense, tedious, and clogs your time. But it doesn't have to be this way.

Meet *Cognition*™, our open source platform and integrated technology stack that makes data ingestion, fusion, and searching painless. Tailored to scale, *Cognition*™ can process tens of thousands of records per second, making your processing faster and deployments simpler.

Forget about the plumbing and start using *Cognition*™ today.

SIFT THROUGH THE CODE AT GITHUB.COM/BOOZALLEN/COGNITION

GOOD IDEAS TRAVEL. SO CAN YOU.

The Combustion Chamber is Booz Allen's premier crowdsourced pitch event. Twice a year, we give our entrepreneurs the chance to present their ideas and potentially secure the investment and mentorship that could transform their original thinking into business solutions.

From Boston to Seattle, Santa Monica to Atlanta, our people have crossed the country to reveal their big ideas to our clients' biggest problems.

Over \$500,000 has been awarded to those bold enough to prepare, pitch, and compete for it.

JOIN US. IT PAYS.

BOOZALLEN.COM/CYBERCAREERS

COMBUSTION
CHAMBER

CATCHING THE 21ST CENTURY BANK ROBBER |

< ON THE ROOFTOP
OF YOUR BUILDING, A GREY HUNK OF METAL HUMS,
WHIRS, RATTLES, AND SPINS. ALL DAY AND NIGHT,
THE HVAC SYSTEM LABORS TO KEEP FRESH AIR
CIRCULATING THROUGHOUT THE BUILDING. A BASIC
COMFORT THESE DAYS, YOU THINK, SCANNING YOUR
NETWORK PERIMETER FOR ACTIVITY. > □



DARKLABS

Then, your breath shortens and your heart rate surges. You see it. Someone got in.

It's hard to look at HVACs the same way ever since hackers broke into the internal networks of a major retailer. Using infectious malware, they boosted network credentials from the HVAC systems vendor. With those credentials on file, they had their way in—a license to steal using nothing but keystrokes and code.

Meet the 21st century bank robber.

THE NEW DETECTIVES

Costly attacks like these are not unusual; in fact, they're increasingly routine and relentless. Hackers don't operate like traditional thieves. They rarely plan a heist with a single entry point, rehearse it, and attempt to execute. Instead, they poke, prod, and pry at every imaginable vulnerability in a system.

A different kind of detective work is required to catch them.

The experts in Booz Allen Dark Labs are an elite group of security researchers, penetration testers, and reverse engineers dedicated to anticipating, outmaneuvering, outsmarting, and preventing malicious

hackers from breaking into critical infrastructure and proprietary systems. Their mission is to sniff out patterns of life in data, code, and social processes that would seem meaningless to an ordinary person.

GETTING THE GREEN LIGHT

Last summer, for instance, a Dark Labs team and a cohort of interns reverse-engineered a traffic light control system used throughout thousands of cities and towns across America. The "Green Light Project," as it was called, identified eight vulnerabilities that, if exploited, would create chaos on our nation's roads and highways.

That chaos never arose. The team coded a software patch to fix the traffic light control system vulnerabilities, responsibly disclosed their findings, and then gave the patch away for free to system vendors and municipalities.

Seeing what others can't and fixing it—that's Booz Allen Dark Labs.

It's about time information security got some fresh air.

For more information on Booz Allen Dark Labs check out darklabs.bah.com

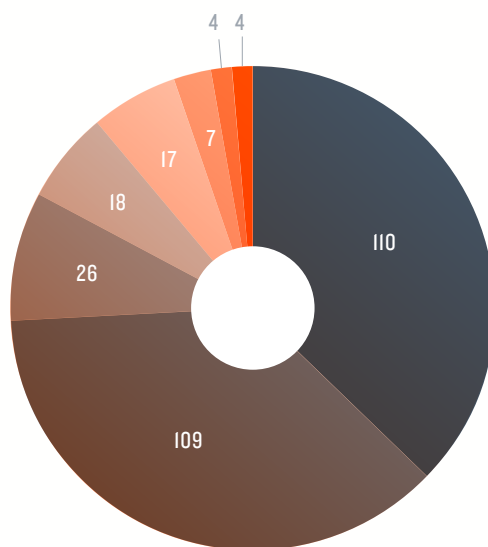


*This story was adapted from "Out of the Shadows," originally featured in Issue 002 of Booz Allen's ENVOI Articles publication. Download the app to your Apple or Android device today to discover the tech that's disrupting industry.

// INDUSTRIES ARE STRONGER WHEN COMPANIES SHARE

In a world of global multi-tiered, multi-nodal networks, organizations must change how they share threat information with one another for the collective good of their sectors. That's why Booz Allen helped organize and establish Information Sharing and Analysis Centers (ISACs) across multiple critical industries. We brokered safe spaces for the world's biggest companies to share cyber threat information, vulnerability intelligence, tactics, and more in a trusted environment. Because we know strength in numbers keeps industries resilient, and people protected.

/* 2015 ICS INCIDENTS BY INFECTION VECTOR (295 TOTAL)



* NCCIC/ICS-CERT Year in Review (2015)

```
Search for .stub section:
10001199      push 0x100032B8 // .stub
1000119F      call dword ptr [0x10003010] // __imp_KERNEL32.dll!lstr-
mpiA[7C80B929]
```



STALKING THOSE WHO PREY ON INDUSTRIAL SYSTEMS |

< TWO HUNDRED
FEET IN THE AIR, A CRANE OPERATOR AT A BUSY
SEAPORT ABRUPTLY FINDS THE CONTROLS INOPER-
ABLE. HER UNION IMMEDIATELY SHUTS DOWN ALL
CRANE OPERATIONS AT THE PORT UNTIL SHE IS
FREED AND THE CRANES ARE DECLARED SAFE. > □



Normal operations at the seaport, however, won't resume until the management company pays several hundred thousand dollars to unlock the ransomware installed on the crane's industrial control system (ICS). What's more, the seaport will lose millions of dollars in operational delays.

Industrial systems like the seaport's crane controls comprise an increasingly diverse and extensively connected set of technologies that affect our daily lives in profound ways—from power surging through electrical grids, to oil flowing through pipelines, travelers commuting on rail networks, and systems controlling high-tech manufacturing facilities. Attacks on these systems

can halt production, cause physical damage, and even risk employees' and customers' lives.

Threat actors who prey on ICS may first gain a foothold on a non-ICS system, like a corporate network, and use that footing to pry into the industrial environment. An ICS attack surface is larger than just its devices, equipment, and networks: vulnerabilities extend to all parts of an operation, including the extended supply chain. And the threats are growing.

To counter those who intend to hijack these systems and disrupt our society, Booz Allen created "hunt" teams of security professionals. These teams partner

with clients to identify and prioritize risks and proactively mitigate network vulnerabilities, helping decrease incident response time from breach to detection.

Our hunters know that defending our nation's infrastructure requires more than just tuning firewalls or applying patches. It requires crafting policies and procedures, training staff, and architecting networks to achieve proper segmentation.

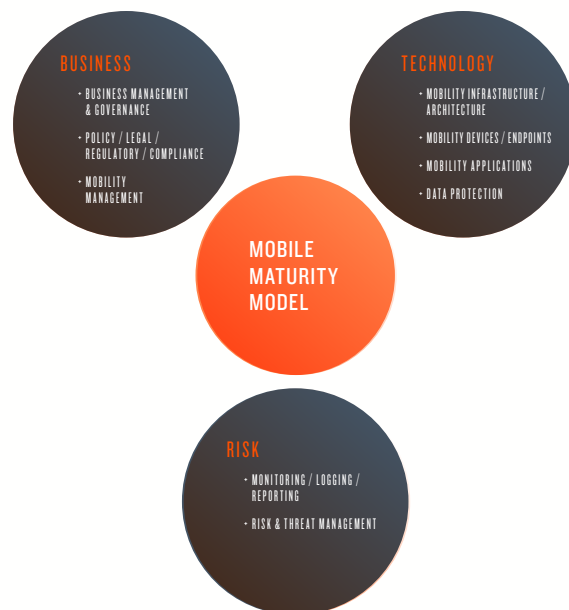
Join the hunt.

[BoozAllen.com/CyberCareers](https://www.boozallen.com/CyberCareers)

// ENTERPRISE MOBILE SECURITY

When Samsung needed to co-create a solution to help enterprises address mobile security gaps, they partnered with Booz Allen. Our security strategists and technology experts teamed up with Samsung Business Services and created the original Mobile Security Assessment Model that identifies risks, threats, and vulnerabilities, and their associated impacts on a client's unique mobile infrastructure. Today, we're helping enterprise clients in security-critical industries such as finance, healthcare, retail, and more embrace a secure, mobile-first strategy.

/* SECURITY MODEL
& METHODOLOGY



Based on FS Shared Assessment Methodology, ISO 27001, COBIT, FedRamp, CSA, and other International Security Standards

```
ENTRY(_sys_fork)
r0 = -EINVAL;
#if (ANOMALY_05000371)
nop;
nop;
nop;
#endif
```

SMSNO_04--[1010]

```
ENTRY(_sys_vfork)
r0 = sp;
r0 += 24;
[--sp] = rets;
SP += -12;
pseudo_long_call _bfn_vfork, p2;
SP += 12;
```



```
pseudo_long_call _bfn_clone, p2;
SP += 12;
rets = [sp++];
rts;
ENDPROC(_sys_clone)
```

MACHINE DATA INTELLIGENCE

< ON THE SURFACE,
MODERN IT ENTERPRISES ARE CONNECTED STACKS
OF SERVERS AND DEVICES, PROTOCOLS, TRAFFIC,
AND LOGS. BUT UNDERNEATH, WITH MILLIONS OF
MICRO-EVENTS EVERY MINUTE, THESE SYSTEMS ARE
GENERATING MACHINE DATA—MASSES OF IT. AND
THERE THAT DATA SITS, THOUSANDS OF POTENTIAL
INSIGHTS REMAINING UNTOUCHED AND UNUSED. > □

At the same time, elaborate network attacks besiege big organizations. Proactive security has become a business imperative. Yet, the data needed to script potential intelligence reports and threat profiles to predict future attacks is largely ignored.

Thanks to Booz Allen's partnership with Splunk, that's changing.

THE NEED TO KNOW

Based in San Francisco, California, Splunk operates a powerful platform for capturing and analyzing machine data to create actionable intelligence. Splunk's platforms and products, combined with Booz Allen's

domain expertise identifying the best data sources and contextualizing collected data, enable organizations to function more productively and securely.

Booz Allen's roots with Splunk run deep. For the last several years, our *Cyber4Sight*® managed security service has used Splunk to analyze open source data it scrapes from the deep and dark web. Splunk's platforms are also integral to our Continuous Diagnostics and Mitigation (CDM) solution, which provides federal agencies with tools and services to more quickly identify and fix cybersecurity vulnerabilities.

AN ACTIVE ALLIANCE

In 2015, Booz Allen and Splunk established a formal strategic alliance. This tighter integration allows our experts to apply Splunk platforms in new ways.

In 2016, Booz Allen won Splunk Federal Systems Integrator Partner of the Year.

Our incident response teams, for example, use Splunk technology to quickly pinpoint weaknesses following cyber breaches. Booz Allen and Splunk are also developing

joint solutions for industrial control systems that allow operations managers to easily assess their Internet of Things-based security hygiene.

Through the partnership, Booz Allen employees also receive free Splunk trainings and certifications, from Knowledge Managers to Certified Splunk Architects. We make sure our people always have the latest technical skills they need to unlock the insights for a resilient defense.

Let's dig in.

< GET SPLUNK CERTIFIED, FOR FREE >

OUR TRAININGS INCLUDE:

- + SPLUNK ADMINISTRATOR CERTIFICATION
- + SPLUNK ARCHITECT CERTIFICATION
- + SPLUNK POWER USER CERTIFICATION
- + SPLUNK RESELLER TRAINING
- + USING YOUR DATA WITH SPLUNK
- + SPLUNK VISUALIZATIONS AND DASHBOARDS

// TEST YOUR STRENGTH HERE

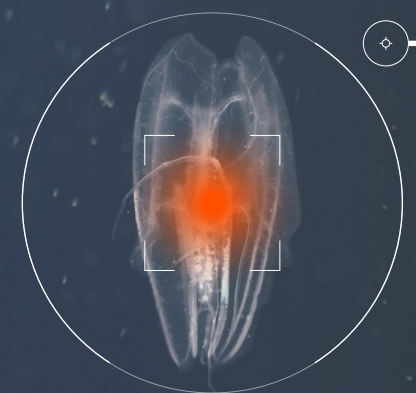
For decades, Booz Allen's wargaming simulations have prepared the Department of Defense for physical conflicts abroad. And when businesses need strategies to defend themselves from cyber attacks, they turn to us. We built the wargame simulation, *Breached!*, for commercial organizations to test their cyber response strategies. To date, we've deployed *Breached!* to secure new digital battlefields for Fortune 500 companies in the technology, financial, and retail industries.

"Breached! players experience a cyber attack from a perspective they've never had. They get to step outside of their typical role and a lot of players tell us 'this really opened my eyes, I'm scared now.'"

— HOWARD FOARD
Lead Associate
& Breached!
Project Manager



DARE TO DO GOOD |



< THE DATA SCIENCE

BOWL IS THE WORLD'S LARGEST DATA SCIENCE COMPETITION FOR SOCIAL GOOD. THE 90-DAY CONTEST, PRESENTED BY BOOZ ALLEN, DARES THE GLOBAL DATA SCIENCE COMMUNITY TO SOLVE COMPLEX CHALLENGES THAT MAKE THE WORLD A BETTER PLACE TO LIVE. >

CURING THE OCEAN

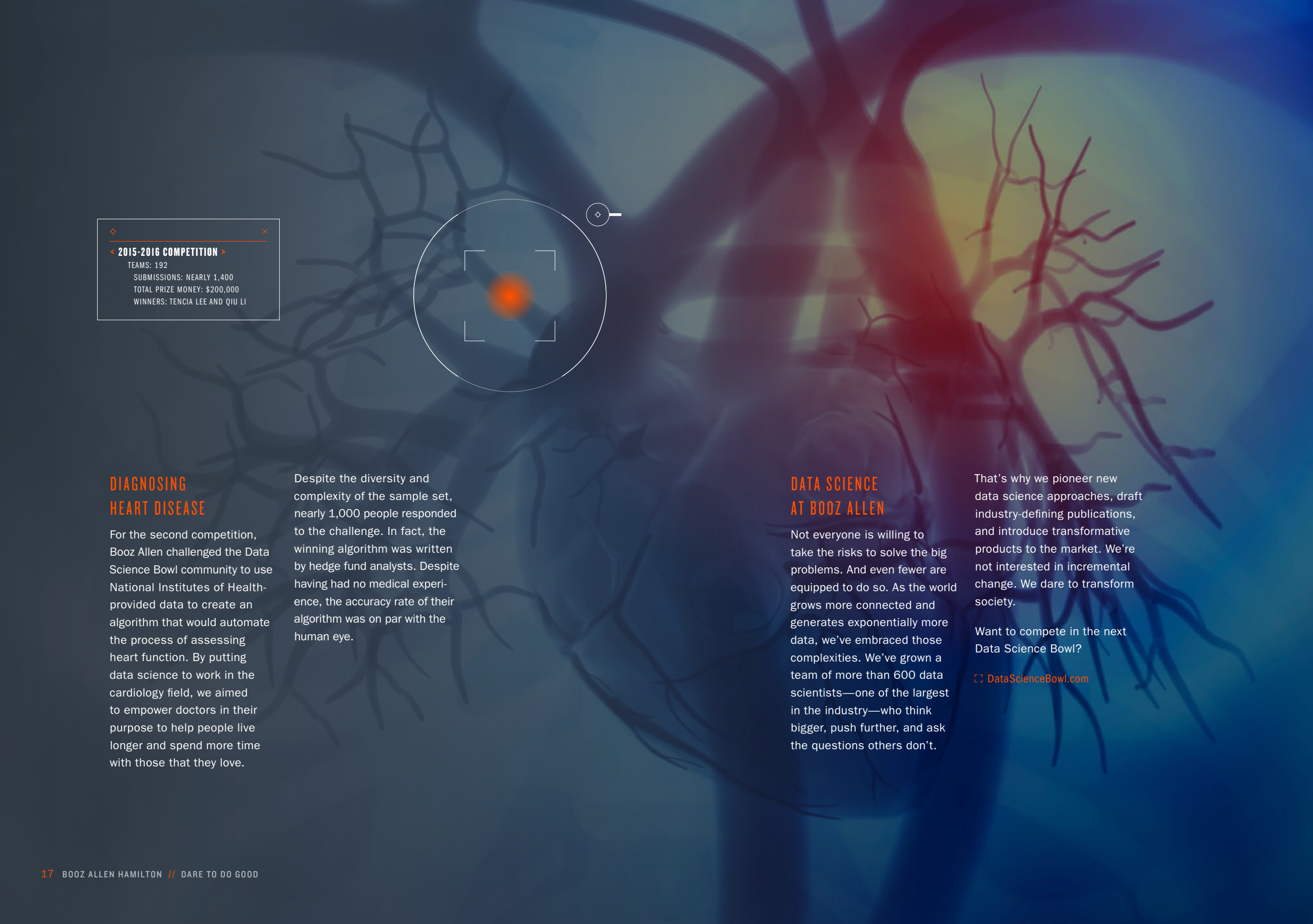
For the inaugural competition, Data Science Bowl participants analyzed more than 100,000 images of plankton. Because plankton are susceptible to small changes in temperature and water chemistry, these microscopic creatures serve as major indicators of ocean health.

The data set, made available thanks to sophisticated image capture methods pioneered by

Hatfield Marine Science Center and its research partners, would have taken years to comb through by hand. Marine biologists needed an algorithm to automate the analysis. The winning submission enabled researchers to monitor ocean health at an unprecedented speed and scale, and advanced the disciplines of computer vision and deep learning.

< 2014-2015 COMPETITION >

TEAMS: MORE THAN 1,000
SUBMISSIONS: 15,000
TOTAL PRIZE MONEY: \$175,000
WINNER: TEAM DEEP SEA



< 2015-2016 COMPETITION >

TEAMS: 192

SUBMISSIONS: NEARLY 1,400

TOTAL PRIZE MONEY: \$200,000

WINNERS: TENCIA LEE AND QIU LI

DIAGNOSING HEART DISEASE

For the second competition, Booz Allen challenged the Data Science Bowl community to use National Institutes of Health-provided data to create an algorithm that would automate the process of assessing heart function. By putting data science to work in the cardiology field, we aimed to empower doctors in their purpose to help people live longer and spend more time with those that they love.

Despite the diversity and complexity of the sample set, nearly 1,000 people responded to the challenge. In fact, the winning algorithm was written by hedge fund analysts. Despite having had no medical experience, the accuracy rate of their algorithm was on par with the human eye.

DATA SCIENCE AT BOOZ ALLEN

Not everyone is willing to take the risks to solve the big problems. And even fewer are equipped to do so. As the world grows more connected and generates exponentially more data, we've embraced those complexities. We've grown a team of more than 600 data scientists—one of the largest in the industry—who think bigger, push further, and ask the questions others don't.

That's why we pioneer new data science approaches, draft industry-defining publications, and introduce transformative products to the market. We're not interested in incremental change. We dare to transform society.

Want to compete in the next Data Science Bowl?

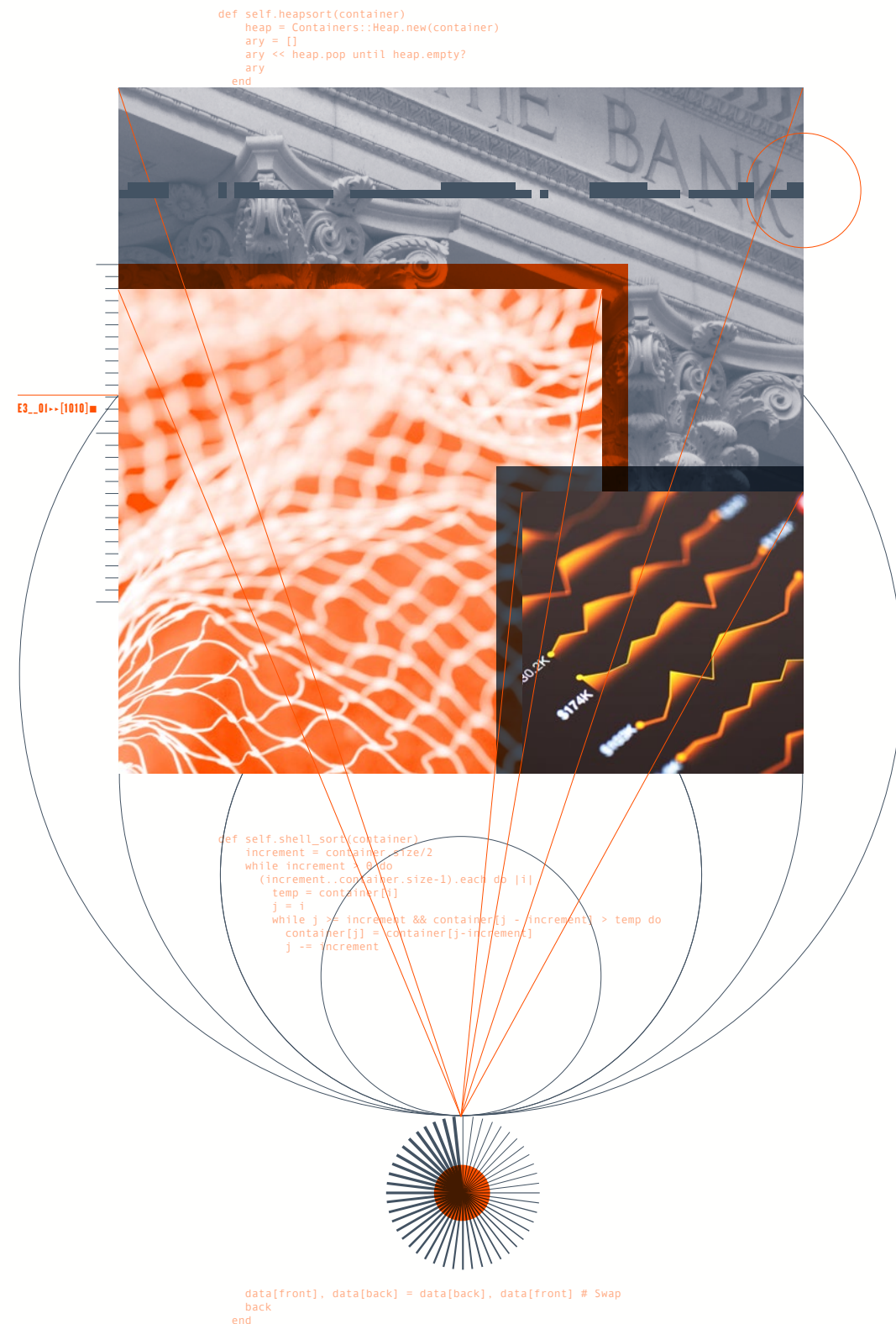
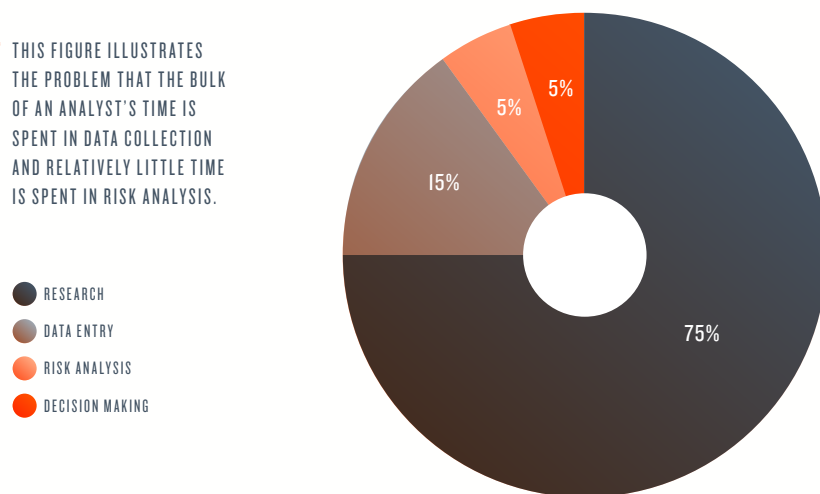
DataScienceBowl.com

// ENRICHING FINANCIAL DATA

Financial analysts can spend up to 80% of their days performing highly repetitive research and data collection. But what if they could invert their time allocation? What if they spent the majority of their time making critical decisions based on uniform data? Quality would increase. That's why Booz Allen created the Entity Enrichment Engine (e3).

Our e3 software automates financial data collection, searches customer attributes from hundreds of sources, scores the data for potential risk, and generates a dashboard of enriched data in seconds. With e3, analysts actually spend their days analyzing data, not just collecting it, which frees them to focus on what matters, like helping more families buy homes or save for retirement.

/* THIS FIGURE ILLUSTRATES THE PROBLEM THAT THE BULK OF AN ANALYST'S TIME IS SPENT IN DATA COLLECTION AND RELATIVELY LITTLE TIME IS SPENT IN RISK ANALYSIS.



THE RED TEAM CHALLENGE

< THIRTY-PLUS

SECURITY EXPERTS FROM SIX COMPANIES SET UP WORK STATIONS IN A PENTHOUSE CORNER OFFICE OVERLOOKING THE CHARLES RIVER IN CAMBRIDGE, MASSACHUSETTS. THERE TO VIE TO WIN THE RED TEAM CHALLENGE CAPTURE THE FLAG (CTF) COMPETITION, THEY MET TO TRADE STORIES AND SETTLE A QUESTION: WHO IS THE BEST? > 

< WHAT IS A CAPTURE THE FLAG COMPETITION? >

IT'S A COMPUTER SECURITY COMPETITION IN WHICH PARTICIPANTS DEMONSTRATE THE TECHCRAFT NEEDED TO PREVENT REAL-WORLD SECURITY ATTACKS BY INFILTRATING AND SECURING A VULNERABLE MACHINE

< THE RED TEAM CHALLENGE >

WHEN: SATURDAY, APRIL 23, 2016

WHERE: CAMBRIDGE, MA

TEAMS: SQRRL, RAPID7, CYBEREASON, ORCA, VERACODE, BOOZ ALLEN HAMILTON

< BOOZ ALLEN'S WINNING TEAM >

FRED FREY, CHIEF ENGINEER

TIM NARY, LEAD TECHNOLOGIST

JAY NOVAK, LEAD TECHNOLOGIST

TOM GEORGEN, STAFF ENGINEER

THE GAME

The Red Team Challenge was a penetration testing CTF competition. Teams were placed in front of five terminals, each machine running either a Windows or Linux system and housing two “boxes” with flags inside.

Each team needed to deploy real-world scanners, exploitation tools, and post-exploitation tactics to discover vulnerabilities in system boxes, penetrate and gain control of them, and capture the flags hidden within. It was a team-based event that demanded strategy, solidarity, and improvisation in order to win.

The Booz Allen team's strategy of divide and conquer based on specialty skills proved successful. The four teammates, experts in Linux, Windows, web exploitation, and malware reverse engineering, formed a formidable collective.

Assuming a malicious hacker's mindset to gain network access, the team broke into the boxes, elevated privileges, and captured eight of the 10 flags in just six hours.

“We were initially behind in points for the first hour,” recalls Chief Engineer Fred Frey. “But once we started scoring, we quickly captured the lead and maintained it for the rest of the day.”

GET NOTICED

Participating in a CTF is a great way to show off your skills and get noticed. In fact, we've recruited some of our best people from CTFs we've either competed in or hosted.

“Before I came on full time,” reflects Staff Engineer and Red Team Challenge teammate Tom Georgen, “I competed in a Booz Allen CTF event called Kaizen, and I loved it.”

Two years later, Tom is one of Booz Allen's most prolific CTF competitors.

And like Tom, we play to win.

Got what it takes?

kaizen-ctf.com

< KAIZEN CTF TRAINING >

1,000+; PEOPLE WHO HAVE PARTICIPATED IN A KAIZEN CHALLENGE
200+; INTERNAL STAFF WHO HAVE BEEN TRAINED WITH KAIZEN
50 MEMBERS OF BOOZ ALLEN'S CTF TEAM THAT ROTATES THROUGH COMPETITIONS
50+; CHALLENGES PARTICIPATED IN SINCE 2013
20+; COMPETITIONS HOSTED BY BOOZ ALLEN
20+; DIFFERENT COMPETITIONS BOOZ ALLEN HAS COMPETED IN
10 CFTS PER YEAR, ON AVERAGE, THAT BOOZ ALLEN COMPETES IN

WANT TO DECODE PUZZLES
FOR A LIVING?



4 4 4 4 4 7
4 4 4 4 4
4 4 4 4 4
4 4 4 4 4

DISCOVER WHAT IT TAKES TO CRACK REAL SECURITY CHALLENGES

WWW.BOOZALLENCYBERSIM.COM/HELLOFRIEND

CAN YOU HACK HAPPINESS?

Living life to its fullest. That's what we want for our people. And we're here to help.

PowerUP is Booz Allen's wellness program to help you stay active, balanced, and connected. From office gyms to standing desks, recreation clubs to learning programs, personal counselors to medical checkups, we give you access to help you feel your best.

Because a healthier you is a better you.

THE BEST YOU STARTS HERE

BOOZALLEN.COM/CAREERS

BOOZ ALLEN SMART TALKS FORMIDABLE IDEAS RESPONSIBLY DISCLOSED

Every day, we ask our people to do extraordinary things. Patch mobile apps with zero-day security vulnerabilities. Determine if Nirvana Hooking or MinWin Hooking is more likely to infiltrate a client's operating system. Perform firmware extraction of a Linksys router and D-Link Wi-Fi camera.

And every so often, they share how they did it with our community.

Be the next to present.

REGISTER FOR THE NEXT SMART TALK

MEETUP.COM/CENTRAL-MARYLAND-SMART-TALKS-MEETUP

YOUR DEV SKILLS
STAND OUT
SO DO OURS.



CMMI DEV / 5SM

In 2016, Booz Allen received Maturity Level 5 of the Capability Maturity Model Integration (CMMI) for Development. It's the highest certification available for systems delivery quality management. Only 10 other Fortune 500 companies have achieved the feat.

Can you push us to keep improving?

SCRIPT YOUR NEXT MOVE HERE

BOOZALLEN.COM/CYBERCAREERS



BE IN THE KNOW. BEFORE ANYONE ELSE.

Cyber4Sight® is the managed service Booz Allen analysts use to deliver anticipatory, actionable threat intelligence and stop cyber attacks before they happen. As part of the team, you'll develop elite tradecraft in network reconnaissance, linguistic intelligence, and socio-cultural intelligence to keep people safe at events like the 2016 Rio Olympics.

Use your knowledge for good.

DISCOVER HOW AT BOOZALLEN.COM/CYBER4SIGHT



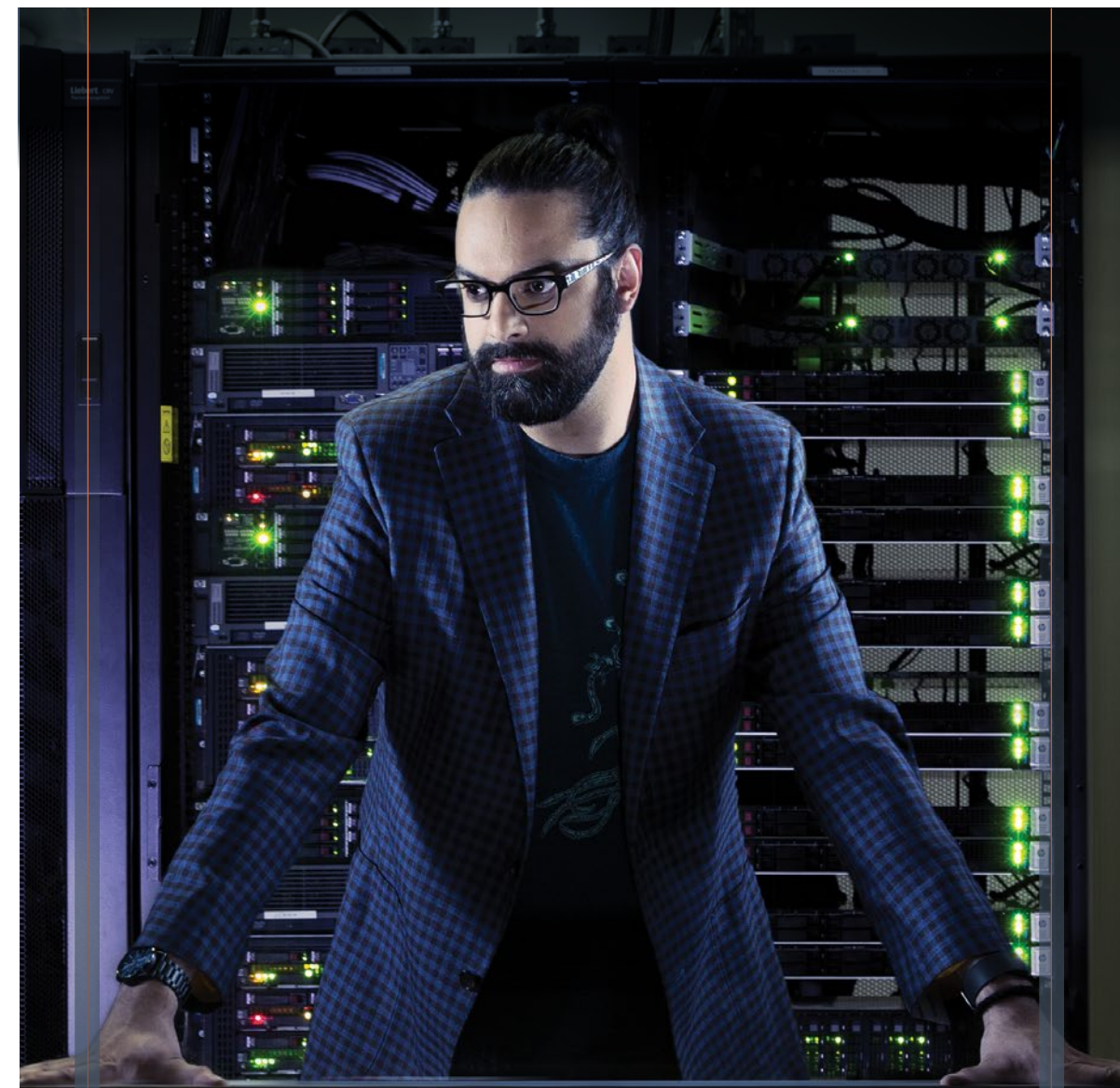
A GAP IN THE CLOUDS

Chris Christou saw the gap. He saw how our clients needed additional security to protect their cloud-based applications and noticed how they struggled to achieve the agility and cost savings of ascending their infrastructure to the cloud.

So he worked with his colleagues at Booz Allen to build Virtual Cloud Defense, a comprehensive suite of products that capitalizes on emerging Network Function Virtualization (NFV) trends to implement a cloud environment-integrated security suite. Now his idea is helping protect the sensitive applications and cloud-hosted data his clients care most about.

When you see a gap, ascend to fill it.

RAISE YOUR CAREER TODAY BOOZALLEN.COM/CYBERCAREERS



IT STARTS WITH PERSPECTIVE

Meet the Booz Allen Cloud Architect. When clients struggle to traverse the shifting digital terrain, he's the Sherpa who guides their journey.

He imagines the future, and helps them chart a course to get there. He builds connections among the suits and development teams alike, as well as their confidence in cloud solutions. He opens clients to new levels of performance, and assembles the technologies that transform their enterprises. The Cloud Architect doesn't follow; he leads.

Booz Allen starts with characters. You can be one of them.

BOOZALLEN.COM/CHARACTERS

TIM NARY |

HE HACKED THE PENTAGON.

HOMETOWN

BROADVIEW HEIGHTS, OH

EDUCATION

B.S., INFORMATION SCIENCES IN TECHNOLOGY
AND SECURITY AND RISK ANALYSIS, PENN STATE
UNIVERSITY

M.S., INFORMATION SYSTEMS ENGINEERING,
JOHNS HOPKINS UNIVERSITY

SKILLS

PENETRATION TESTING/RED TEAM WEB SECURITY
HACKING/VULNERABILITY RESEARCH

LANGUAGES

PYTHON/RUBY/C/C++/BASH/PHP/JAVASCRIPT

MOVIES

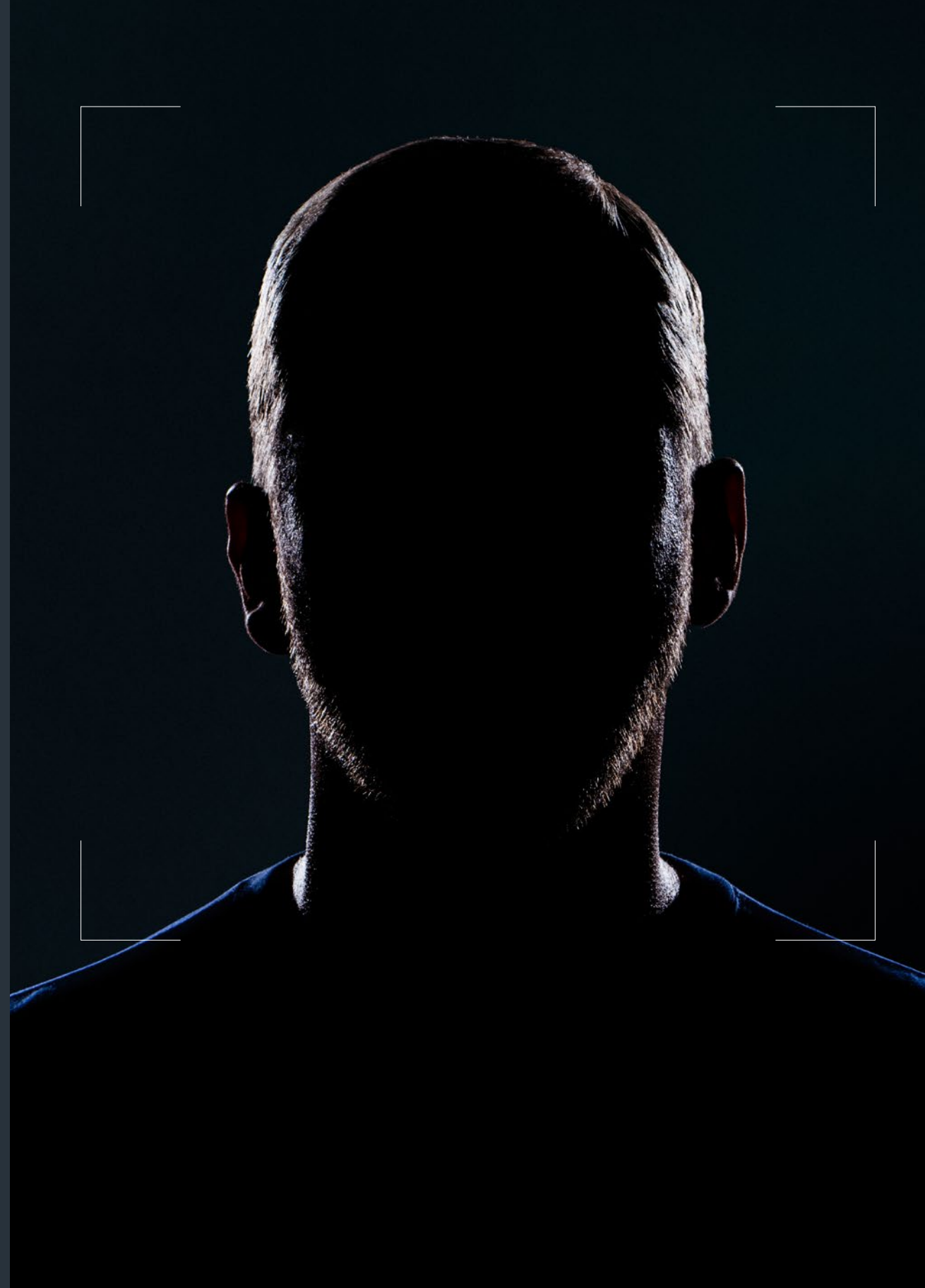
STAR WARS/PULP FICTION/UP/HOW TO TRAIN YOUR
DRAGON

MUSIC

EDM/HOUSE/TRANCE

HOBBIES

VIDEO GAMES/HOME-BREWING CRAFT BEER/
BALLROOM DANCING



< TIM WORKS IN THE INTELLIGENCE COMMUNITY AS A PENETRATION TESTER AND RESIDENT HACKER FOR BOOZ ALLEN DARK LABS. BELOW, HE SHARES A UNIQUE OPPORTUNITY, HIS BACKGROUND, AND GROWTH AT BOOZ ALLEN.> □

Well, yes. “Hack the Pentagon” was a public bug bounty DoD initiative: basically, find and report bugs, and get compensated for what you find.

It was the first one in the history of the federal government. How did it go?

I found 22 unique vulnerabilities in a predetermined enterprise system. I finished second overall, out of 1,400 hackers.

Good marketing. It sounded cool, and I can get behind something patriotic to help out the country. Also, I get to say, “I hacked the Pentagon.”

In middle school, I liked playing computer games. There were always hacks to manipulate your character, to get maximum stats and whatnot. I realized I loved finding flaws in systems and figuring how to exploit them.

Mobile device security, and figuring out how to assess those with MDMs. Software development and security engineering. And of course, penetration testing.

I was at the National Cyber Summit in Huntsville, Alabama recently. Two of our Booz Allen Dark Labs teams won the Cyber Cup CTF outright, which was cool

Prior to that, we were in Boston for the Red Team Challenge CTF. We won that,

On that note, tell us about Kaizen.

Kaizen is Booz Allen's CTF-based training program. We developed it for staff to hone their hacking skills through exercises, and it's evolved into a program that we sell to clients, as well as host locally in competitions among the cyber community.

So, Kaizen is a lot of your day job then?

Yes. I develop a lot of Kaizen programs. But I also work on AppCritique, which is a mobile security assessment tool to expose flaws before they become problems. And Blacklight, which is a network security tool.

Why do you do what you do?

There are security challenges in the intelligence community that you can't find elsewhere. But really, the flexibility with the work I get to do is amazing: Kaizen, development and travelling to participate in CTF hacking interesting client problems and doing open vulnerability research. I love the challenges. >



ALEXANDRA HECKLER |

THE TECHNOLOGY MATCHMAKER.

HOMETOWN

BRONXVILLE, NY

EDUCATION

B.S., FOREIGN SERVICE, GEORGETOWN UNIVERSITY
M.A., COMMUNICATION, CULTURE AND TECHNOLOGY,
GEORGETOWN UNIVERSITY

CERTIFICATE IN INTERNATIONAL BUSINESS DIPLO-
MACY, GEORGETOWN UNIVERSITY

INDUSTRY EXPERTISE

AUTOMOTIVE/HIGH-TECH MANUFACTURING/
U.S. DEFENSE AND FEDERAL GOVERNMENT

LANGUAGES

ENGLISH/FRENCH/SPANISH/POLISH

HEROES

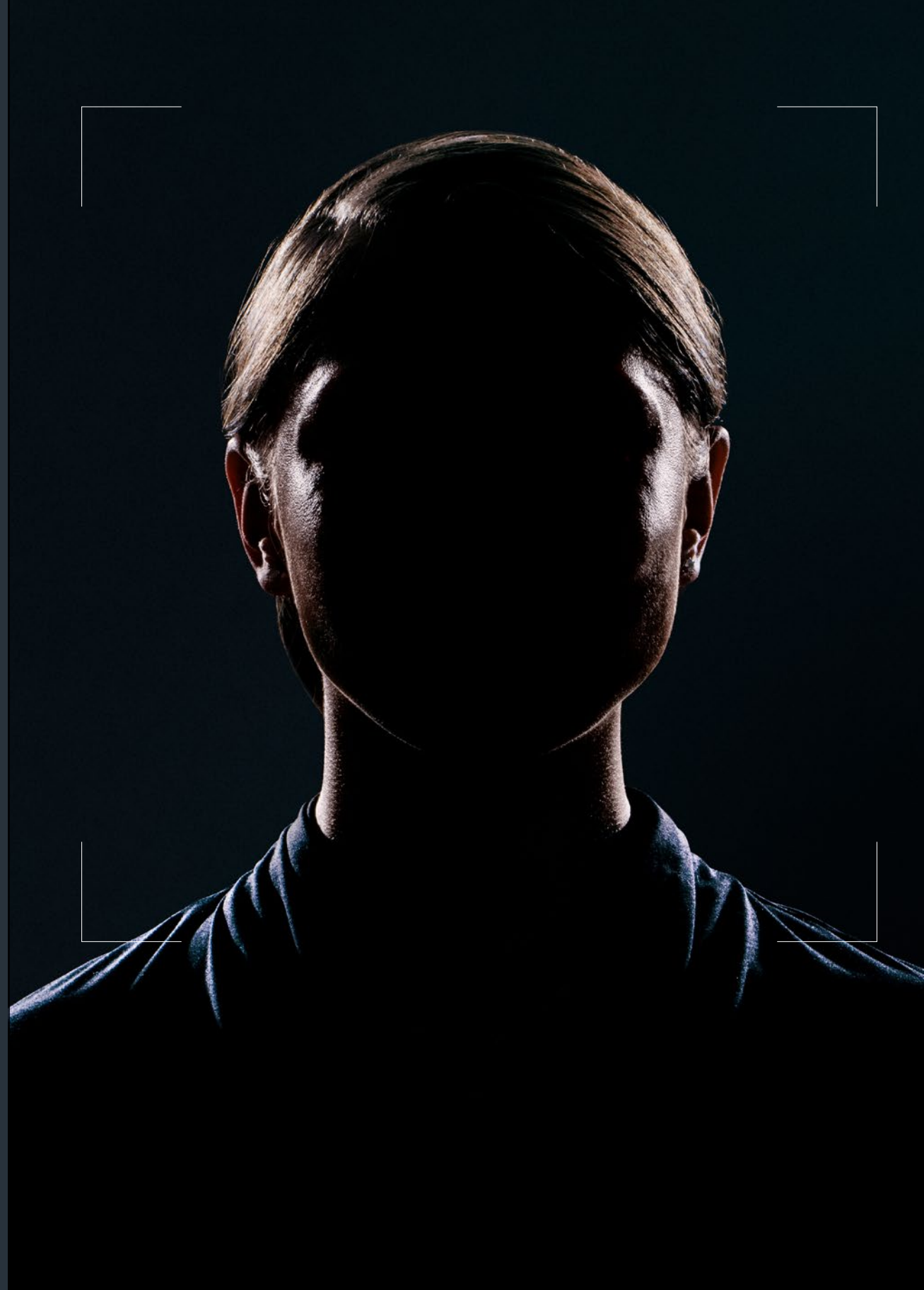
MARY BARRA/DR. TED MORAN

TV SHOWS

SILICON VALLEY/THE WEST WING

HOBBIES

CAMPING/COOKING/BOARD GAMES/SKIING



< HIGH-TECH
MANUFACTURING AND CYBER
EXPERT ALEXANDRA HECKLER
SHARES HER STORY ON THE
FUTURE OF CONNECTED
VEHICLES, AND A CAREER
SPENT AT THE EDGE OF
TECHNOLOGY.> □

It started two years ago, when Booz Allen set up a cybersecurity program for an automaker. When I first started here, nobody at the firm was a vehicle cybersecurity expert. In fact, there were very few in the world at the time. I remember going online to search for vehicle cybersecurity, and there were under 10,000 results on the subject.

Really? That few?

Right! But twenty months later, after we had helped the company stand up its vehicle cybersecurity program and built up our Internet of Things business capabilities, I searched again. There were more than 1.3 million results. A lot of those were about our client, the work we had done, and even some of the papers we published. It's exciting to be part of a field that was being created as we were working in it.

Is that typical of your career at Booz Allen?

I was initially working in risk analytics while doing my master's program part-time. Then, I shifted to our technology petting zoo.

What's that?

I was part of a team that went and found technology that was five years from really being mature. We were sort of technology matchmakers, identifying cyber solutions in the works before they were mainstream, and finding ways to connect them to our clients seeking to take advantage of nascent technology. It's been a great career so far. I've had a liberal arts approach to it, really. I've worked a little bit in the federal space, and then shifted to the commercial side of the business.

I did. It's neat, too, because one of the big advantages was the flexibility. I had a class on Friday afternoons, so I'd work a couple extra hours on a Tuesday and free myself to skirt out a little bit early for class. Between tuition and flexibility, the firm was very supportive.

Say yes to new opportunities, especially the ones that make you uncomfortable. The ones that keep you on edge are the ones that challenge you. If something is difficult you'll learn a lot more than something you already understand. I certainly did. >



KEVIN MINSKY |

THE CYBER WONK.

◇ ×
HOMETOWN
SEATTLE, WA

EDUCATION
B.S., POLITICAL SCIENCE, UNIVERSITY OF WASHINGTON
J.D., DOCTOR OF LAW, SYRACUSE UNIVERSITY

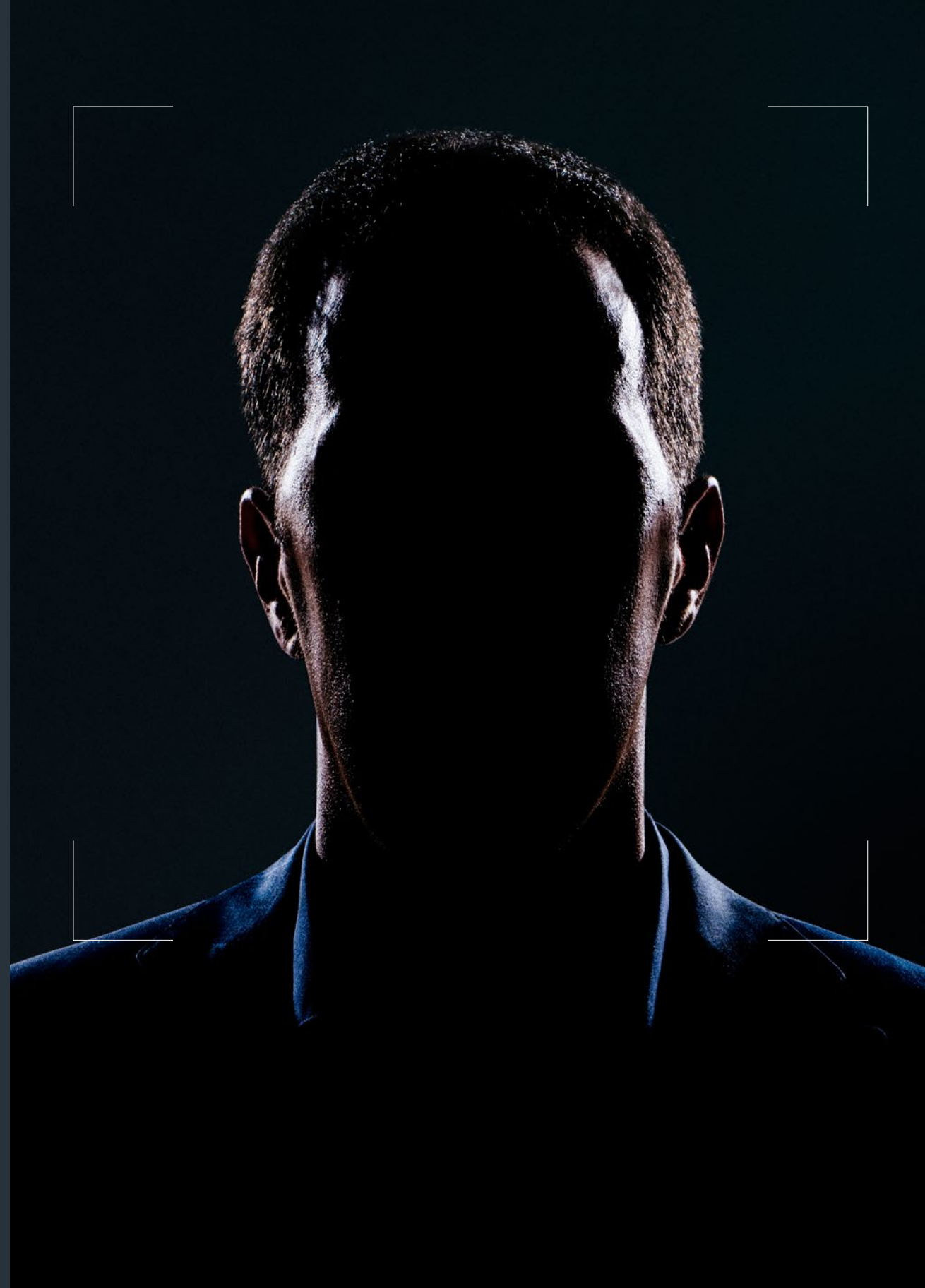
XP
19 YEARS

INDUSTRY EXPERTISE
INTERNET TELECOMMUNICATIONS/STARTUP AND
TECHNOLOGY/PUBLIC SERVICE AND GOVERNMENT

FORMER EMPLOYERS
MORGAN LEWIS/FBI/MICROSOFT

HEROES
JAY INSLEE/JOHN F. KENNEDY/LYNDON B. JOHNSON

HOBBIES
HIKING/TENNIS/FOREIGN CULTURE AND TRAVEL



< BOOZ ALLEN'S
RESIDENT CYBER POLICY WONK
KEVIN MINSKY GIVES HIS
TAKES ON TODAY'S BIGGEST
CYBERSECURITY LEGAL ISSUES,
BOOZ ALLEN'S INFLUENCE ON
POLICYMAKING, AND HOW HE
STAYS INFORMED.> □

I've done a little bit of everything. I've worked at the FBI advising senior leaders on changes in telecom law's impact on law enforcement. Then, Microsoft for five years after that, where I advised on the intersection of law, changing technology, and transitioning to cloud software.

Definitely. First, the law has never been clear on the edge of technology. It's true today for cyber. Technology moves faster than courts, legislators, and policy thinkers. They're always trying to play catch-up.

What's Booz Allen doing about that?

We're pushing to build better security mousetraps," from products to managed services like **Cyber4Sight®**. We're trying to be more proactive, rather than reactive, in changing policy: statutes, regulation, legislation. We're just getting started on that, so it's an exciting time.

What are the biggest cybersecurity policy issues you're focused on?

Good question. Device security. Internet of Things—which, to me means connected devices, from Fitbits, to cell phones, to cars, to microwaves. Workforce, as well, building tools and trainings to help get companies and government trained up to monitor and track cyber threats.

Encryption. Privacy versus law enforcement is really big now. We're not looking to be in the crossfire, but we can facilitate a discussion, help develop coalitions, and bring our expertise around technical issues

What makes a great cyber policy wonk?

You need three basic skills. You need to understand the nuts and bolts of how policy gets made. You need to understand technology, connected devices, and their vulnerabilities. And you have to have passion. Policy and regulation shape the world we live in.

Seems that your job requires you to be informed on shifting debates. How do you do that?

Government agencies have gotten much better about pushing out technology—news through RSS feeds, Facebook, Twitter. I also get newsletters from law firms and trade associations that track regulations and changes in law.

I'm a tech geek, so I read Ars Technica, The Verge. CNET has some interesting coverage of issues. New York Times and Washington Post are great sources for the big debates like encryption. And I listen to the CyberWire super-fast, 7-10 minutes, and that kind of stuff, too. They track all the cutting edge technical and legal issues. >



TRISH GOFORTH |

FROM ENGINEER TO EXECUTIVE.

HOMETOWN

NEW ORLEANS, LA

EDUCATION

B.S., SYSTEMS ENGINEERING,
UNIVERSITY OF VIRGINIA

M.S., SYSTEMS ENGINEERING,
UNIVERSITY OF VIRGINIA

XP

33 YEARS

INDUSTRY EXPERTISE

CYBERSECURITY/INFRASTRUCTURE/
COMMUNICATIONS

COMMUNITY INVOLVEMENT

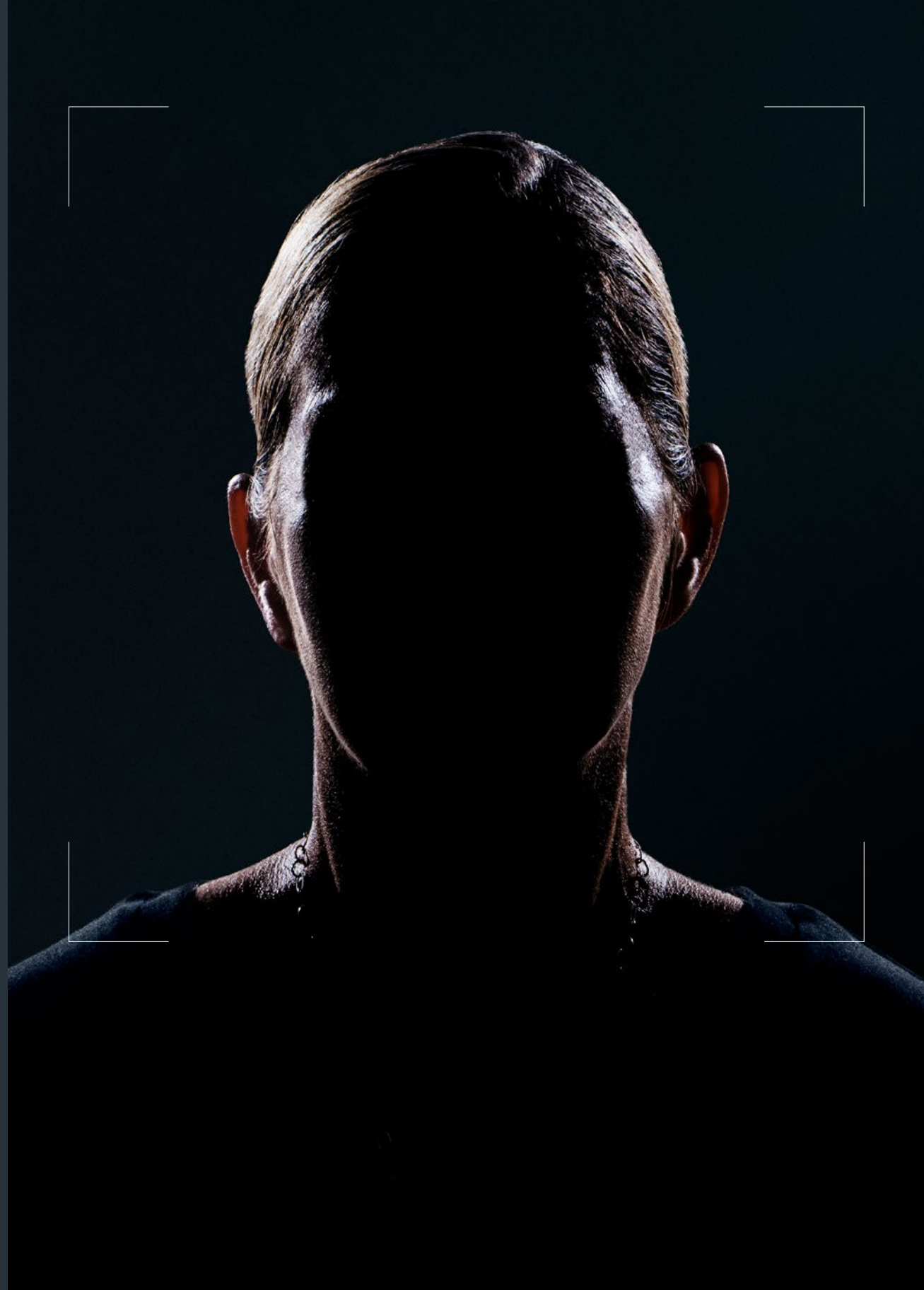
WOMEN IN CYBERSECURITY CONFERENCE/
UVA SYSTEMS ENGINEERING ROUND TABLE

MOVIES

FORREST GUMP/SHAWSHANK REDEMPTION/
THE BLIND SIDE/LOVE ACTUALLY

HOBBIES

GOLF/MYSTERY NOVELS/SKIING/COOKING



< TRISH GOFORTH
STARTED HER CAREER AS AN
ENGINEER ON A SATELLITE
SYSTEM. NOW AN EXECUTIVE
VICE PRESIDENT, SHE SHARES
HER THOUGHTS ON THE OPPOR-
TUNITIES AT BOOZ ALLEN. > □

< Trish, what are you
working on right now?

Right now, I work with U.S. Cyber
Command in Fort Meade, Maryland.
We're looking at their problems and
how to bring our cyber engineering solu-
tions to them, selling those solutions,
and building the teams to deliver them.
Prior to that, I worked with the Defense
Information Systems Agency (DISA),
helping them build their secure communi-
cations capabilities.

Most of that work is classified, correct?

Yes. In fact, 69% of Booz Allen
employees have security clearances.
And we work with new recruits to
get them the appropriate clearance.
We take that seriously, because
we're doing critical work in protecting
our citizens and warfighters.

You've spent most of your career at Booz Allen.
What's kept you here?

The continuous learning. I've constantly
been given new opportunities and stretch
assignments. I never felt stuck in a job.
If there was a new opportunity, I was
encouraged to go for it.

And now, as an Executive Vice President, you
get to return the favor.

Absolutely. I get to give the same oppor-
tunities others gave me. We also have a
strong resource management organiza-
tion where you can say, "I'd really like to
do this other thing." Employees become
the resource managers' clients, and the
managers work with their network to
identify new opportunities. We always
find ways to keep that person engaged.

Do you have to work on the management side
to become an executive at Booz Allen?

No. I started out as an engineer.

Really?

Yes. Out of college, I was a systems engi-
neer working as a contractor on a satellite
system. Booz Allen was a subcontractor.
I was impressed with how prepared their
consultants always were and their excel-
lence in client service. So I joined Booz
Allen and worked in engineering until I
transitioned into a management role
about eight years ago.

Last question: What makes Booz Allen different
from other firms with cybersecurity practices?

We have long-standing relationships with
all the major players in the cyber community.
You can find an area that excites you and
where you can make a difference. >



CODE CHANGES EVERYTHING

Meet the Developer. His code transforms the way you experience the world. It cures healthcare inefficiencies, arms soldiers with intelligence, and drives advances in connected vehicles. He makes the world better, safer, and more connected.

Booz Allen starts with characters. You can be one of them.

BOOZALLEN.COM/CHARACTERS



BUILD YOUR IDEA INTO A BUSINESS WE'LL SHOW YOU HOW



You take pride in your ideas, in your techcraft. You've got the drive, and you value teamwork. Now all you need is the know-how to build a great business. We've got you covered.

Booz Allen partners with Techstars, the world's leading global startup accelerator, to teach brilliant people like you how to speed up the pace to becoming a successful entrepreneur.

Because when you invest your career with us, we invest in you.



In just 54 hours, you'll brainstorm, collaborate, pitch, and experience the rush of building a business from the ground up.

STARTUPWEEKEND.ORG



For six weeks, expert mentors teach you how to start up a company, refine your business plan, and pitch real investors at the end.

STARTUPNEXT.CO

PUT YOUR NAME ON IT

Our people have pioneered transformative technology, from defending against phishing threats to fingerprinting vehicles using electromagnetic radiation emissions. We don't just invest in your intellectual property, we help you trademark and patent it.

WE INVEST IN YOU

Just because you get hired doesn't mean we expect you to know everything from day one. But we do expect you to grow. And we'll invest to make sure that you do.

Booz Allen employees receive \$5,000 per year in tuition benefits for graduate courses and certificate trainings. Access to 10,000 free online books and study guides through our Cyber University. We'll even send you to conferences and get you clearances. Whatever you need to assemble the career you want.

Because business is built on investments.
Ours is built on you.

BOOZALLEN.COM/CYBERCAREERS



DIVERSITY IS OUR DEFAULT

At Booz Allen, diversity and inclusion isn't just a catchphrase—it's a necessity.

Our creativity is founded in a rich heritage of original thinking, diverse perspectives, and fail-forward environments.

Through 14 Diversity and Inclusion forums, we create space for conversations around community issues, and empower our people to bring their full selves to work.

There's a place for you here.

BOOZALLEN.COM/ABOUT/DIVERSITY-INCLUSION |

THIS SUMMER ENGINEER CHANGE

Booz Allen's competitive Summer Games internship challenges you to solve global security problems, like analyzing climate change and the social vulnerabilities of foreign nations.

During the course of 10 weeks, apply your coding, reverse engineering, and vulnerability analysis skills to spot and patch critical security threats with talented developers and security experts.

Think you can hack it? Email your resume, cover letter, and questions to:

SUMMER_GAMES@BAH.COM |

JOIN A MISSION THAT MATTERS

What if you could use your talents to change lives?

In the past two years, Booz Allen has collectively given more than 200,000 hours of volunteer work to over 1,500 nonprofits. We partner with communities on social good efforts like cybersecurity education for veterans, STEM education programs, affordable home renovations, and more.

Join hackathons to solve global problems like genocide and human trafficking. Make the internet safer and more secure with (ISC)². Help close crucial talent gaps by mentoring with Girls Who Code or *FIRST*[™], and inspire young students to grow into technology and science leaders.

Because the more you give away, the more you get back.

UNLEASH YOUR PASSION HERE BOOZALLEN.COM/CAREERS |

MAKE YOUR IMPRINT

We achieved great feats in our first 100 years.

We pioneered management consulting. We navigated the U.S. Navy into the dominant presence of World War II.

We invented Harvey Balls. We coined the phrase supply chain management.

And, in 1969, we were involved in the theoretical strategy for Apollo 11

that sent man to the moon.

We achieved all of this in 100 years.

But the real question is: What do you want to achieve?

What problems will you solve

in the dawn of our second century? Where will you lead us next?

Our work has plumbed the depths of oceans,

transformed the way entire industries work,

and made an imprint on an airless moon.

It's time to make yours.

Join us, and solve a problem

that matters.

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