WELCOME, AND THANKS FOR JOINING!

ABOUT GRAHAM GILMER

Graham Gilmer is a Vice President in Booz Allen's Analytics practice, focused on research and client delivery in the areas of machine learning, deep learning, artificial intelligence, and quantum computing. He leads a team that delivers innovative AI capabilities for defense and intelligence clients, including many of the U.S. Government's AI pathfinder efforts. Graham also manages technical investments in Booz Allen's R&D portfolio across the lifecycle of AI operations. He established the firm's relationship with NVIDIA Corporation, setting the strategy and bilateral engagement to bring next-generation computing technology to the Federal Government. Graham holds a B.S. in Management Science & Engineering from Stanford University.

GRAHAM GILMER
Vice President, Artificial Intelligence
Booz Allen Hamilton
ai@bah.com

ABOUT BOOZ ALLEN

For more than 100 years, military, government, and business leaders have turned to Booz Allen Hamilton to solve their most complex problems. As a consulting firm with experts in analytics, digital, engineering, and cyber, we help organizations transform. We are a key partner on some of the most innovative programs for governments worldwide and trusted by their most sensitive agencies. We work shoulder to shoulder with clients, using a mission-first approach to choose the right strategy and technology to help them realize their vision. With global headquarters in McLean, Virginia, and offices worldwide, our firm employs nearly 27,200 people and had revenue of $7.5 billion for the 12 months ending March 31, 2020. To learn more, visit BoozAllen.com.

AI IS NO LONGER A LUXURY GOOD — IT IS A NECESSITY

Historically, the United States has enjoyed technology leadership. We have had the freedom to innovate at our own pace. Our open markets have encouraged fair competition between private companies (industry) that have accelerated AI advancements.

TODAY WE HAVE ENTERED A DIFFERENT ERA

URGENCY

We are on the brink of an AI deficit and we will fall behind if action is not taken immediately to heed the call plainly made in the National Security Commission on Artificial Intelligence (NSCAI) Final Report [1]

CONSEQUENCES

AI will continue to accelerate in every aspect of life, and adversaries are determined to turn AI capabilities against us. The United States must act now to field AI systems and invest substantially in AI innovation. We can either shape the change to come or be swept along by it [2]

SOLUTION

The challenge ahead cannot be solved by one company, government, or industry alone. It is critical that we embrace collaboration and responsibly develop the future of AI together

BOOZ ALLEN HAS DEVELOPED A CALL TO ACTION FOR INDUSTRY

With your help, we can, and we will, maintain U.S. leadership

STARTUP | Newer companies founded by entrepreneurs to develop a unique product

TRADITIONAL DEFENSE | Longstanding technology companies that primarily provide U.S. Government contracting and manufacturing services

BIG TECH | Largest and most influential companies in the technology sector

THE CHALLENGE AHEAD CANNOT BE SOLVED BY ONE COMPANY, GOVERNMENT, OR INDUSTRY ALONE. IT IS CRITICAL THAT WE EMBRACE COLLABORATION AND RESPONSIBLY DEVELOP THE FUTURE OF AI

AI FOR AMERICA

Rapid advancement in AI strategy must be comprehensive and democratized.
The new era of AI will require America to put forward its best people, partners, and technology

RESPONSIBLE AI TODAY

A human-centered approach places ethics at the forefront of AI. America must set the standard to promote accountable AI systems with a commitment to developing ethically sound solutions

AI WORKFORCE REVOLUTION

With high demand for AI talent, organizations must optimize structures to attract, train, scale, and mature the AI workforce. Diversity of AI contributors is a catalyst for innovation and rapid progress

AI TECH ECOSYSTEM

A holistic approach guided by R&D efforts is essential to create an effective and accessible AI environment. Paired with integrated systems, best practices, and adoption, the ecosystem will allow for pockets of innovation to blossom

PARTNERING FOR INNOVATION

The U.S. Government cannot do this alone. Industry must expand and deepen partnerships with the Government and Academia to accelerate innovation

AI FOR AMERICA

ACCELERATED
Rapid advancement in a comprehensive AI strategy in parallel with technology investment is critical for the United States to maintain leadership and provide for the national security of the American people

COMPREHENSIVE
The challenge requires a solution that encompasses infrastructure, technical solutions, policy, workforce, and partnerships regarding AI. It will demand iteration and a feedback-driven approach that is flexible to rapid prototyping

DEMOCRATIZED
Efforts must lower the barrier to entry through investments and partnerships so the benefits of AI can be applied across sectors, and not only by the largest companies

Call to Action

Bring momentum to this critical decade of AI; engage and start a conversation today

Whoever leads in AI by 2030 will rule the world until 2100; it is critical to have a national strategy that sets values for AI[3]

NSCAI REFERENCES | CHAPTERS

(1)—(3)—(5)—(9)—(11)

"The United States must elevate AI considerations from the technical to the strategic level. Emerging technologies led by AI now underpin our economic prosperity, security, and welfare. The White House should establish a new Technology Competitiveness Council led by the Vice President to integrate security, economic, and scientific considerations; develop a comprehensive technology strategy; and oversee its implementation." NSCAI Report, Executive Summary

RESPONSIBLE AI TODAY

HUMAN-CENTERED
Humans will drive critical decisions; AI will enhance human decisions through data and reduce manual efforts on mundane tasks

ETHICAL AND TRUSTWORTHY
Lead by example through Ethical AI Frameworks to mitigate bias and implement accountable and technically rigorous systems

RESPECTFUL
Promote approaches that maximize insights derived from AI while protecting individual privacy; doing so will promote best practices and standards both domestically and internationally

Call to Action

Normalize AI in your community by increasing transparency and trust, reducing barriers

The DoD Joint Artificial Intelligence Center (JAIC): Operationalizing the DoD ethical principles into the Responsible AI Framework [4]

NSCAI REFERENCES | CHAPTERS

4 — 7 — 8

"The fact that AI, from the training data to the output, is not static means you have to be intentional in creating meaningful decision points and processes to ensure that we are building technology in a responsible manner."
Alka Patel, Head of AI Ethics Policy, JAIC [5]

[4,] Highlighting the Progress and Future of Responsible AI in DoD – Ai.mil
[5] The AI Ethics Journey Will Hit New Heights in 2021 - AI in Defense

AI WORKFORCE REVOLUTION

OPTIMIZED
Create organizational structures and incentives that allow AI technologists to thrive and apply cutting-edge technologies to the mission; become a destination of choice for practitioners

TRAINED
Establish training programs to increase current workforce capabilities as well as advanced training in AI through public-private partnerships and academia; keep a long-term focus to scale and mature the workforce

INCLUSIVE
Ensuring and fostering diversity in backgrounds, experience, skills, and thought is critical for innovation. Industry must invest in a wide range of talent to transform technology

Call to Action

Deepen academic partnerships, provide training to current staff, and recruit top talent to the National Security field

The Software Engineering Institute (SEI), Carnegie Mellon: ODNI funded the AI Initiative to advance AI engineering [6]

NSCAI REFERENCES | CHAPTERS

(2)—(6)—(10)

The NVIDIA Deep Learning Institute (DLI) offers hands-on training in AI, accelerated computing, and accelerated data science. Developers, data scientists, researchers, and students can get practical experience powered by GPUs in the cloud. And IT professionals can access courses on designing and managing infrastructure to support AI, data science, and HPC workloads across their organizations.[7]

[6] Office of the Director of National Intelligence Sponsors SEI to Lead National AI Engineering Initiative – SEI News
[7] Deep Learning Institute and Training Solutions | NVIDIA

AI TECH ECOSYSTEM

HOLISTIC
To create the right conditions requires addressing technology, infrastructure, talent, tools, and strategy, all of which is underpinned by healthy R&D investments to lead innovation

INTEGRATED
Through accessible, integrated, and automated solutions, AI development can be rapidly advanced to meet evolving threats. Ease of technology is critical for user adoption

BASED ON SHARED BEST PRACTICES
Utilize existing best practices and share technology where possible – avoid duplication of efforts

INNOVATIVE
Create a space for innovation and promote and maintain R&D partnerships

Call to Action

Plug into the integrated AI ecosystem to contribute and scale innovative capabilities

USAF U-2 Dragon Lady Recon aircraft: "Putting AI safely in command of a U.S. military system for the first time ushers in a new age of human-machine teaming" Will Roper, Air Force [8]

NSCAI REFERENCES | CHAPTERS

(2)—(5)—(16)

"The DoD must set an ambitious goal. By 2025, the foundations for widespread integration of AI across DoD must be in place. Those foundations include a common digital infrastructure that is accessible to internal AI development teams and critical industry partners alike, a digitally literate workforce, and modern AI-enabled business practices that improve efficiency." NSCAI Report, Ch. 2

[8] U-2 Flies with Booz Allen Hamilton Artificial Intelligence Algorithm - Aviation Today

PARTNERING FOR INNOVATION

PARTNERED WITH INDUSTRY
The U.S. Government must work with industry and academic partners to stay attuned with the latest technology, invest to fill gaps as needed, and field prototypes to mature them into trusted systems

COLLABORATIVE
Industry must work together to innovate through integrated partnerships. Larger organizations can sponsor new tech startups

UNITED
Without the commitment of resources, talent, technology, and partnerships from industry the US will not be able to maintain leadership in AI

Call to Action
Industry, academia, and government must collaborate to pave the way forward

Senator Mark Warner introduced bipartisan legislation to create a new interagency office to coordinate technology strategies with allies to counter China's influence [9]

NSCAI REFERENCES | CHAPTERS

9 — 11 — 14 — 15

"DoD must leverage industry's comparative advantage in available R&D capital as part of its investment strategy. To do so effectively, the Department must adopt a consistent and transparent approach to messaging defense technology priorities that enables Defense primes and non-traditionals to plan and invest more to help meet DoD R&D needs, and further supports the Department's efforts to attract venture-backed companies." NSCAI Report Ch. 2

Booz | Allen | Hamilton®

boozallen.com/AI
AI@bah.com