

BIA

BOSTON
INSTITUTE OF
ANALYTICS[®]

GLOBAL LEADER IN PROFESSIONAL TRAINING PROGRAMS

DUAL CERTIFICATE PROGRAM IN

**CYBER SECURITY &
ETHICAL HACKING**



**#1 INTERNATIONAL
TRAINING INSTITUTE**

RANKED BY BUSINESS WORLD, BRITISH COLUMBIA TIMES,
BUSINESS STANDARD, AVALON GLOBAL RESEARCH, IFC
AND SEVERAL RECOGNIZED FORUMS.

www.bostoninstituteofanalytics.org





BOSTON
INSTITUTE OF
ANALYTICS



Boston Institute of Analytics - Empowering Minds, Transforming Futures.

As the world's top ranked advanced training institute, Boston Institute of Analytics imparts training to students and working professionals via classroom training conducted by industry experts. With training campuses across US, UK, Europe and Asia, BIA® has training programs across the globe with a mission to bring quality education in emerging fields. BIA® courses are designed to train students and professionals on industry's most widely sought after skills, and make them job ready in today's rapidly evolving world.

Boston Institute of Analytics stands as the pinnacle of global excellence in education, boasting three distinguished schools that cater to the diverse and evolving demands of the professional landscape.

The **BIA® School of Technology & AI** offers a spectrum of courses ranging from Data Science to Cyber Security, ensuring students are equipped with cutting-edge skills in the rapidly advancing field of technology. The **BIA® School of Management** provides comprehensive courses in disciplines such as Investment Banking, Financial Analytics, and Business Management, shaping future leaders with a strategic and forward-thinking mindset. For those aspiring to enter the creative industries, the **BIA® School of Animation & Design** offers courses in Animation, Gaming, Fashion Analytics, VFX, and more, fostering innovation and artistic expression. **BIA® School of Media and Communications** has range of in-demand courses spanning across journalism, advertising, english communications and public speaking to equip students to thrive in today's ever-evolving media and communications landscape. **BIA® School of Scholars** has an array of engaging courses tailored for young minds in the K-12 age group, covering a spectrum from abacus, animation, AI, robotics to foreign languages, preparing the young minds for the hyper competitive world of tomorrow.

BIA's influence extends across the globe with a network of 85+ campuses, creating a truly international learning environment. At the heart of its success is the commitment to delivering training by industry experts, ensuring that students receive real-world insights and practical knowledge. BIA's immersive classroom interactive format enhances the learning experience, allowing students to engage actively with the material and collaborate with peers. As the global leader in these specialized courses, BIA® continues to shape the future of professionals, empowering them to thrive in their chosen fields.

BIA® has been consistently ranked number one international training institute by Business World, British Columbia Times, Business Standard, Avalon Global Research, IFC and Several Recognized Forums. Boston Institute of Analytics classroom training programs have been recognized as industry's best training programs by global accredited organizations and top multi-national corporates.



BIA

BOSTON
INSTITUTE OF
ANALYTICS[®]

Global Leader in Professional Training Programs

7+

COUNTRIES

105+

CAMPUSES

350+

GLOBAL CORPORATE
PARTNERS

50,000+

BIA[®] TRAINED STUDENTS

15+ Million

TRAINING HOURS COMPLETED

7,000+

INDUSTRY TRAINERS

Top Enrolled BIA® Courses

BIA BOSTON INSTITUTE OF ANALYTICS

BECOME A
BIA® CERTIFIED
DATA SCIENTIST
IN 4 MONTHS

1500+
Admissions
Every Month

DATA SCIENCE & ARTIFICIAL INTELLIGENCE

BIA BOSTON INSTITUTE OF ANALYTICS

BECOME A
BIA® CERTIFIED
CYBER SECURITY & ETHICAL HACKING
PROFESSIONAL

1300+
Admissions
Every Month

CYBER SECURITY & ETHICAL HACKING

BIA BOSTON INSTITUTE OF ANALYTICS

GET DUAL CERTIFICATION IN
INVESTMENT BANKING & FINANCIAL ANALYTICS

1100+
Admissions
Every Month

INVESTMENT BANKING & FINANCIAL ANALYTICS

BIA BOSTON INSTITUTE OF ANALYTICS

DUAL CERTIFICATE PROGRAM IN
BUSINESS MANAGEMENT & ANALYTICS

1200+
Admissions
Every Month

BUSINESS MANAGEMENT & ANALYTICS

And Many More...

BIA

BOSTON[®]
INSTITUTE OF
ANALYTICS

Key Highlights



INDUSTRY APPROVED CURRICULUM

Courses designed and developed by top industry professionals.



LEARN FROM SCRATCH, OR NOT!

Depending on your current expertise level, choose Core or Advanced module.



HANDS-ON TRAINING

You cannot master a language without speaking it.



100% PLACEMENT ASSISTANCE

Access to jobs and internships from partner companies, resume building, interview prep and soft skills training.



BECOME INDUSTRY READY

Work on real industry case studies.



UNIFIED LEARNING

Explore the benefits of both classroom & online learning.



LEARN FROM EXPERIENCED INDUSTRY PROFESSIONALS

Professionals know what to prepare you for.



BIA[®] Alumni Working With Top Global Companies

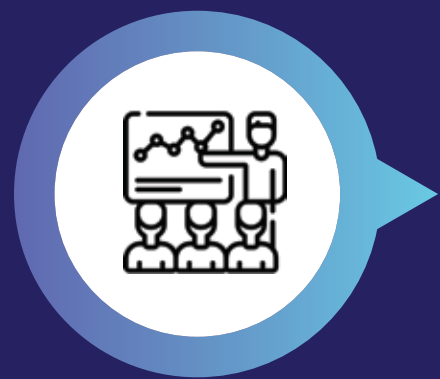
				
				
				
				
				
				
				

And Many More...

Learning Path



LEARN THROUGH CASE STUDIES



UNDERGO HANDS-ON TRAINING



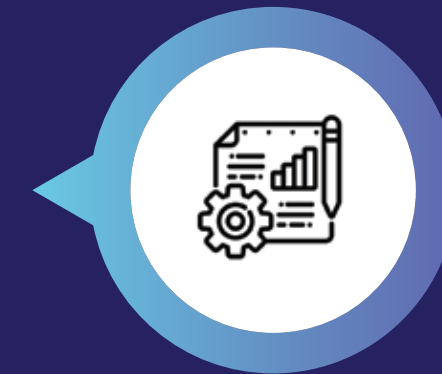
PERFORM ASSIGNMENTS



CAPSTONE PROJECT



INTERVIEW PREP AND
SOFT SKILLS TRAINING



IN-CLASS ASSESSMENT AND
FEEDBACK ON ASSIGNMENTS

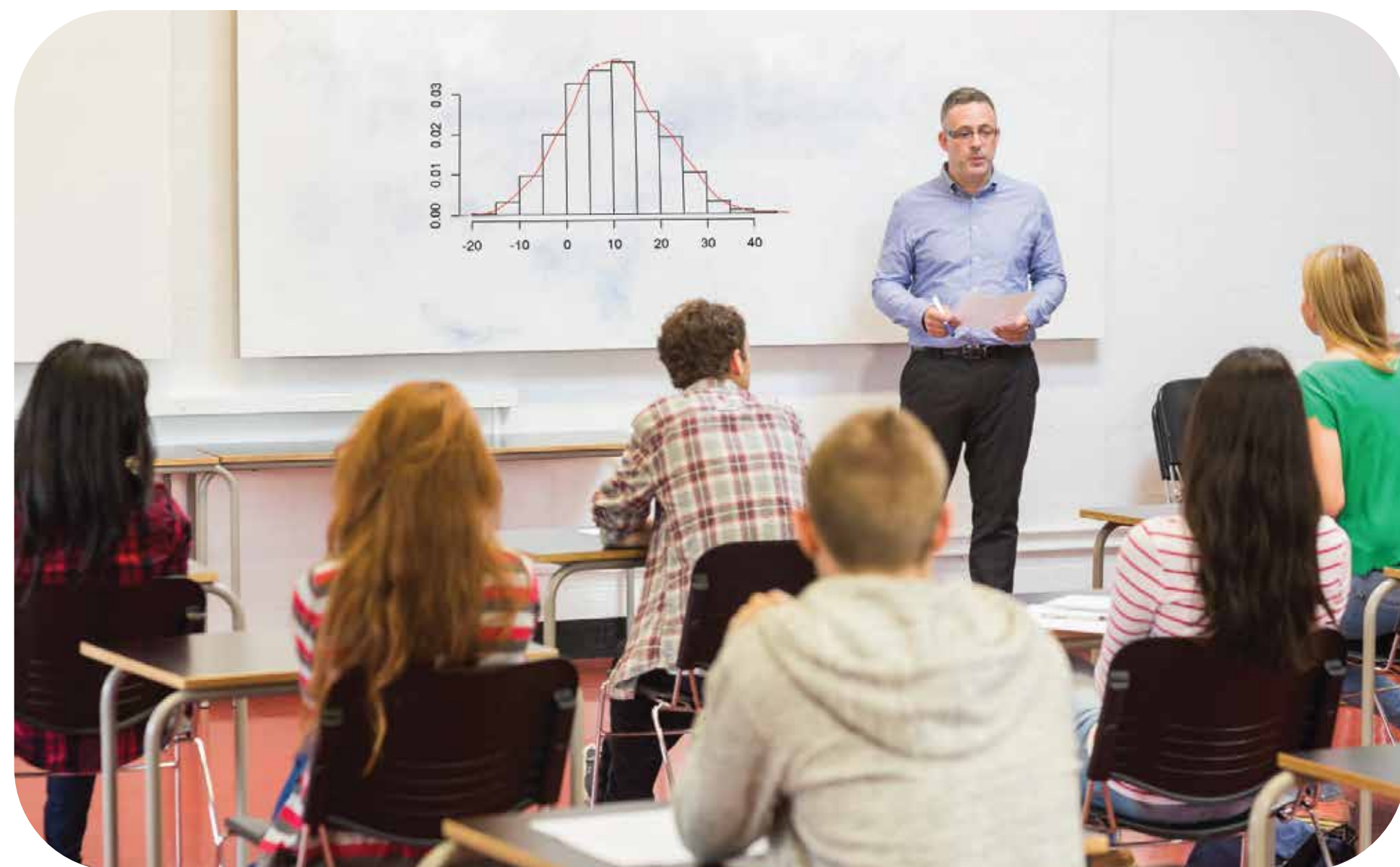


PLACEMENT ASSISTANCE



LIFETIME CAREER SUPPORT

Mode of Learning



CLASSROOM



ONLINE

BIA[®] has a **CLASSROOM + ONLINE** training pattern where students have the flexibility to attend the sessions IN CLASSROOM as well as ONLINE. BIA[®] Trainers conduct the training sessions live from BIA[®] Classrooms. All BIA[®] sessions are live streamed for students from that batch, thus enabling students to attend the same sessions ONLINE and interact with the Trainer as well as other students.

Skill-Sets Covered



VULNERABILITY ANALYSIS



**RECONNAISSANCE AND
INFORMATION GATHERING**



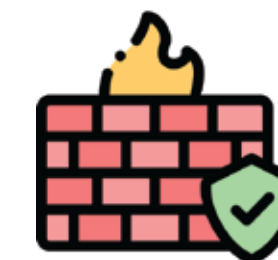
WEB APPLICATION SECURITY



PENETRATION TESTING



NETWORK SECURITY



IDS, FIREWALLS, AND HONEYPOTS

Tools & Technologies

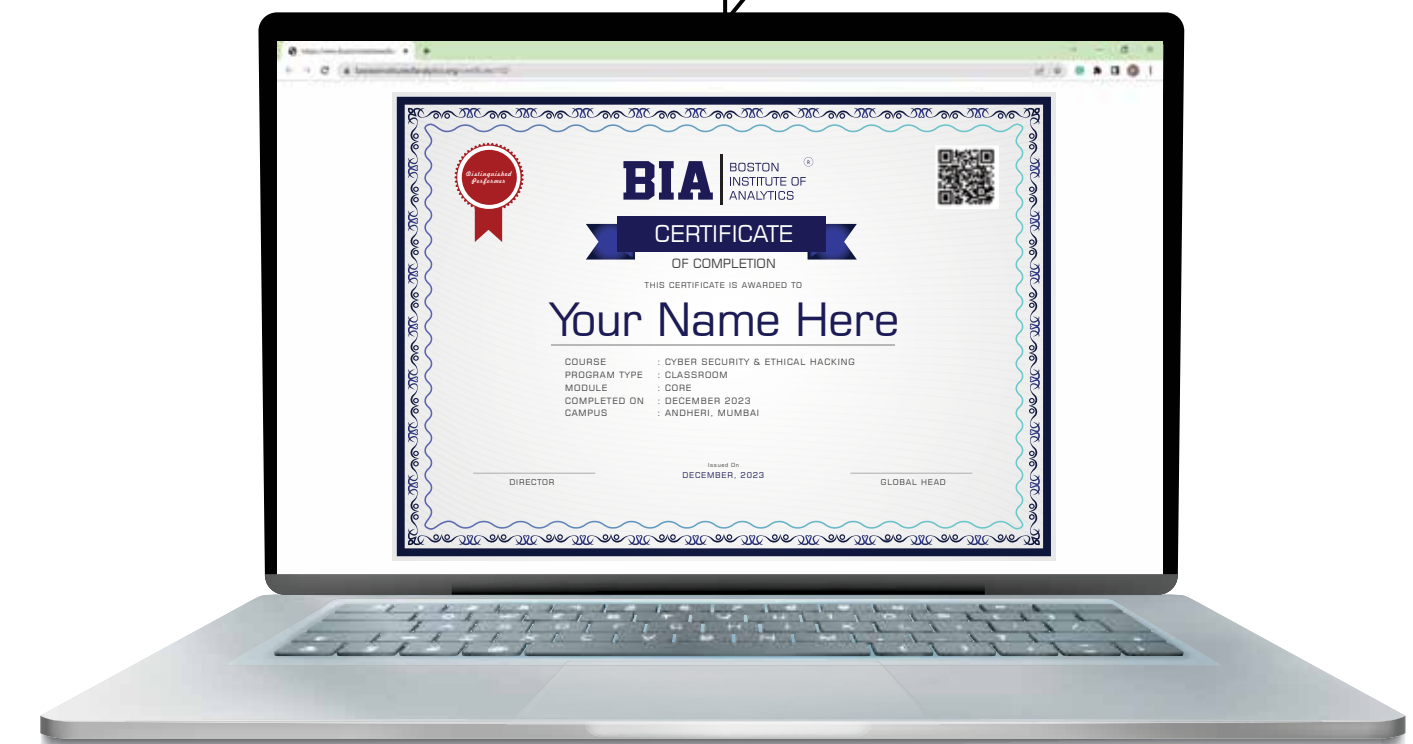




International Certification Right Here In India!



All our certificates are validated with
a unique authorization QR code.



Know Your Future As Cyber Security & Ethical Hacking Professional

Job Roles You Can Apply For

CYBER SECURITY EXPERT

**CYBER SECURITY
ENGINEER**

**APPLICATION SECURITY
ENGINEER**

PENETRATION TESTER

ETHICAL HACKER

**NETWORK SECURITY
MANAGER**

CYBER SECURITY ANALYST

**CYBER SECURITY
CONSULTANTS**

**WEB APPLICATION
SECURITY TESTER**

**NETWORK SECURITY
ANALYST**

INCIDENT RESPONDER

SECURITY RESEARCHER

**MOBILE APPLICATION
SECURITY TESTER**

**INFORMATION SECURITY
ANALYST**

**SECURITY
ADMINISTRATOR**

**CLOUD SECURITY
SPECIALIST**

VULNERABILITY ASSESSOR

**NETWORK SECURITY
ENGINEER**

**SECURITY OPERATIONS
CENTER (SOC) ANALYST**

**SECURITY COMPLIANCE
ANALYST**

And Many More...

DUAL CERTIFICATION

IN TWO MOST IN-DEMAND AND HIGHLY PAID SKILLS

CYBER SECURITY

+

ETHICAL HACKING



CYBER SECURITY & ETHICAL HACKING

CORE MODULE

Embark into the dynamic world of Cybersecurity and Ethical Hacking, where every click is a step toward digital mastery. Dive into practical labs, simulations, and real-world experiences that mirror the challenges of the ever-evolving Cybersecurity and Ethical Hacking landscape.



CERTIFICATION

4 Months

(100 HOURS WEEKEND COURSE)

DIPLOMA

6 Months

(100 HOURS WEEKEND COURSE) +
(2 MONTHS PROJECT INTERNSHIP)

MASTER DIPLOMA

10 Months

(100 HOURS WEEKEND COURSE) + (6 MONTHS ON-JOB TRAINING AS CYBER SECURITY ANALYST)

COURSE EXPECTATIONS AND STRUCTURE

- Overview of the Course Modules
- Brief on Assignments and Assessments

INTRODUCTION TO THE LEARNING ENVIRONMENT

- Digital Platforms and Resources
- Communication Channels

INTRODUCTION TO INFORMATION SECURITY AND HACKING

- Introduction to Cyber Security
- Types of Hackers
- CIA Triad
- Common Vulnerabilities, Exposure and Identifiers
- CVSS (Common Vulnerability Scoring System) Framework
- Types of Security Testing
- Introduction to Networks and Network Topology
- Categories of Computer Networks
- LAN, MAN, WAN
- Computer Network Architecture
- Peer-to-Peer Architecture

EXPLORING NETWORK FUNDAMENTALS: 1

BLUE TEAM

- Understanding the Internet and Protocols
- Exploring the Modern Internet: Deep Web and Dark Web
- Internet Protocol Standards
- Regional Internet Registries (RIRs)
- How the Internet Operates
- OSI Model and Related Network Protocols (Case Study)
- TCP/IP Protocol Suite
- Header Structures
- TCP vs. UDP (Transmission Control Protocol vs. User Datagram Protocol)
- SCTP: Stream Control Transport Protocol

CYBER SECURITY & ETHICAL HACKING

EXPLORING NETWORK FUNDAMENTALS: 2

BLUE TEAM

- Understanding ICMP Messages
- ICMP Ping
- Traceroute
- ICMP Redirect
- IP Fragmentation and Reassembly
- IPv4
- Classes of IP Addresses
- Subnet Masks
- Private IP Addresses
- Understanding IPv6 Addresses
- Practical Exercise: Routing – Modes of Addressing
- IPv4 vs. IPv6

FUNDAMENTALS OF CLOUD COMPUTING & CLOUD SECURITY

BLUE TEAM

- Introduction to Cloud Computing and Cloud Security
- NTLM and Kerberos
- Practical Exercise: Security Identifiers (SID)
- RID

ADVANCE NETWORKING: 1

BLUE TEAM

- IPv6 Subnetting
- Supernetting
- Routing
- Routing Protocols
- Virtual LAN (VLAN)
- VLAN Trunking Protocol
- Network Address Translation (NAT)
- Virtual Private Network (VPN)
- SSL/TLS
- Practical Exercise: Router Security
- Mac Address Filtering

ADVANCE NETWORKING: 2

BLUE TEAM

- Introduction to Firewall
- Firewall Monitoring
- Firewall Protocols
- Intrusion Detection/Prevention System
- IDS and IPS
- Types and Detection
- Practical Exercise: Network Packet Analysis
- Packet Capture
- Wireshark

FUNDAMENTALS OF WINDOWS

BLUE TEAM

- Windows Architecture / File System/ File Permissions
- Practical Memory Management
- Practical: SAM Files and System Files
- Password Hashing
- LM Hash
- NTLM Hash
- Processes and Threads
- Practical Exercise: Windows Registry
- Registry Keys
- Hives
- Opening The Registry
- Exporting and Importing Keys
- Adding New Registry Entries
- Practical Exercise: Windows Commands
- Active Directory
- Lightweight Directory Access Protocol (LDAP)

CYBER SECURITY & ETHICAL HACKING

FUNDAMENTALS OF LINUX: 1

BLUE TEAM

RED TEAM

- Introduction to UNIX
- Introduction to Linux
- Practical Exercise: Installing Virtual Box
- Practical Exercise: Installation of Kali Linux
- Practical Exercise: Linux File System Architecture
- Directory Structure

FUNDAMENTALS OF LINUX: 2

BLUE TEAM

RED TEAM

- Kali Linux – Introduction
- Practical Exercise: Commands
- Practical Exercise: Linux File Permissions

INTRODUCTION TO MOBILE APPLICATION SECURITY

BLUE TEAM

RED TEAM

- Android File System
- Importance of Manifest/ XML/ DEX Files
- RAT
- Rooting Android
- Android Pentesting Tools
- Using ADB and Installing Custom Recovery / OS
- Mitigation

RECONNAISSANCE AND API PENTESTING

RED TEAM

- Active Reconnaissance
- Passive Reconnaissance
- Tools – ReconSpider, GhostEye/HawkScan
- Automated Tools
- Mitigation
- Open Redirection using Host Header Injection
- Session Hijacking / JWT Hijacking
- BLH
- Mitigation

PENETRATION TESTING

RED TEAM

- XSS / HTML Injection
- SQL Injection
- CORS
- OTP Bypass / Capthcha Bypass
- Mitigation
- CSRF vs SSRF
- IDOR
- Buffer Overflow / DOS
- Mitigation
- File Upload Vulnerability
- Parameter Tampering
- API Pentesting
- Mitigation

ANALYZING AND SOLVING VULNERABLE MACHINES

- Reconnaissance (Information Gathering)
- Vulnerability Scanning
- Exploitation
- Privilege Escalation
- Post-Exploitation
- Documentation
- Analysis
- Mitigation
- Reporting
- Cleanup and Restoration

CYBER SECURITY & ETHICAL HACKING

FUNDAMENTALS OF NETWORK EXPLOITATION

RED TEAM

- Practical Exercise: Reconnaissance
- Practical Exercise: DNS Lookup
- Practical Exercise: Google Dorks
- Practical Exercise: Social Engineering
- Packet Crafting
- Practical Exercise: Packet Crafting using Hping3
- Practical Exercise: Port Scanning using Hping3
- Practical Exercise: Network Mapper (NMAP)
- Practical Exercise: Netcat
- Practical Exercise: NCAT
- Understanding Common Services/Protocols
- IPsec Protocols and Operations
- Practical Exercise: VPN (IKE Scan)
- Practical Exercise: Hacking Passwords (Using Dictionary)
- Nessus Uses

CAPSTONE PROJECT ALLOCATION; MENTORSHIP AND PRESENTATION

- Project and Dataset Assignment by Capstone Mentor
- Orientation Session by Capstone Mentor – Project
- Expectations
- Mentorship Session by Capstone Mentor – Doubt
- Resolutions
- Project Presentation

SOFT SKILLS TRAINING

- Presentation Skills
- Email Etiquettes
- LinkedIn Profile Building
- Personality Development and Grooming

INTERVIEW PREPARATION

- Interview Do's and Don'ts
- Mock Interviews
- HR And Technical Interview Prep
- One-On-One Feedback

Access to Global Network of BIA® Advisory Council



**ASHWIN MALIK
MESHRAM**

Managing Director of a US-based machine learning company, specializing in algorithm development for financial services. IIT Bombay alumnus.

Specialities:

Predictive Analytics, Machine Learning,
Artificial Intelligence

Domain Expertise:

Insurance, Retail, E-commerce, Banking,
Asset Management



PETER VIOLA

VP of Product and Implementation at a US-based machine learning and artificial intelligence company; Majored in Physics from Tufts University.

Specialities:

Scenario Planning Algorithms, M &
A Analytics, Operational Efficiency

Domain Expertise:

Insurance, Asset Management,
E-commerce



JAMES KERLEY

Managing partner at US based business transformation company, Ex-CMO at LIMRA LOMA.

Specialities:

Sales Analytics, Marketing, Strategy

Domain Expertise:

Insurance, Finance, Wealth Management



NIRAV DAGLI

CEO of a predictive analytics and artificial intelligence company based out of Boston. Ex-Partner at Oliver Wyman.

Specialities:

Financial Modelling, Algorithm Development,
Predictive Analytics

Domain Expertise:

Banking, Insurance, Asset Management,
Consumer Goods



XI ZHAO

Co-leading the Financial Literacy Initiative at Boston Private Industry Council, Member of 'President's Council' at Boston Children's Museum, Teaches Investment course at Clark University, CFA® Charter Holder, Boston University alumnus.

Specialities:

Econometrics, Risk Modelling,
Marketing Analytics

Domain Expertise:

Automobile, Banking, Insurance,
Asset Management



MICHAEL AGHA

Advisor at SPARK research program at Stanford University, Ex- Global Brand Strategy at Intel, Ex-Oliver Wyman, Wharton alumnus.

Specialities:

Corporate Strategies, Marketing Analytics,
Business Transformation

Domain Expertise:

Health Care & Life Sciences, Pharmaceutical,
Hard Tech



TONY BORDON

Managing Director of a global company specializing in analytics and insurance-based software; Board member of The Boston Children's Museum and BUILD.ORG. Ex-president of Institutional Initiatives with The Princeton Review. Ex-COO of Riverdeep Inc.

Specialities:

Marketing Analytics,
Sales Strategies

Domain Expertise:

Digital Media, Education,
Entertainment Publishing



**RISHIKESH
DESHPANDE**

CEO of a marketing and research analytics firm. Consultant to Fortune 1000 companies.

Specialities:

Marketing Analytics, Financial Modelling,
Predictive Analytics

Domain Expertise:

Retail, FMCG, Consumer Goods, Media,
Manufacturing, Telecom

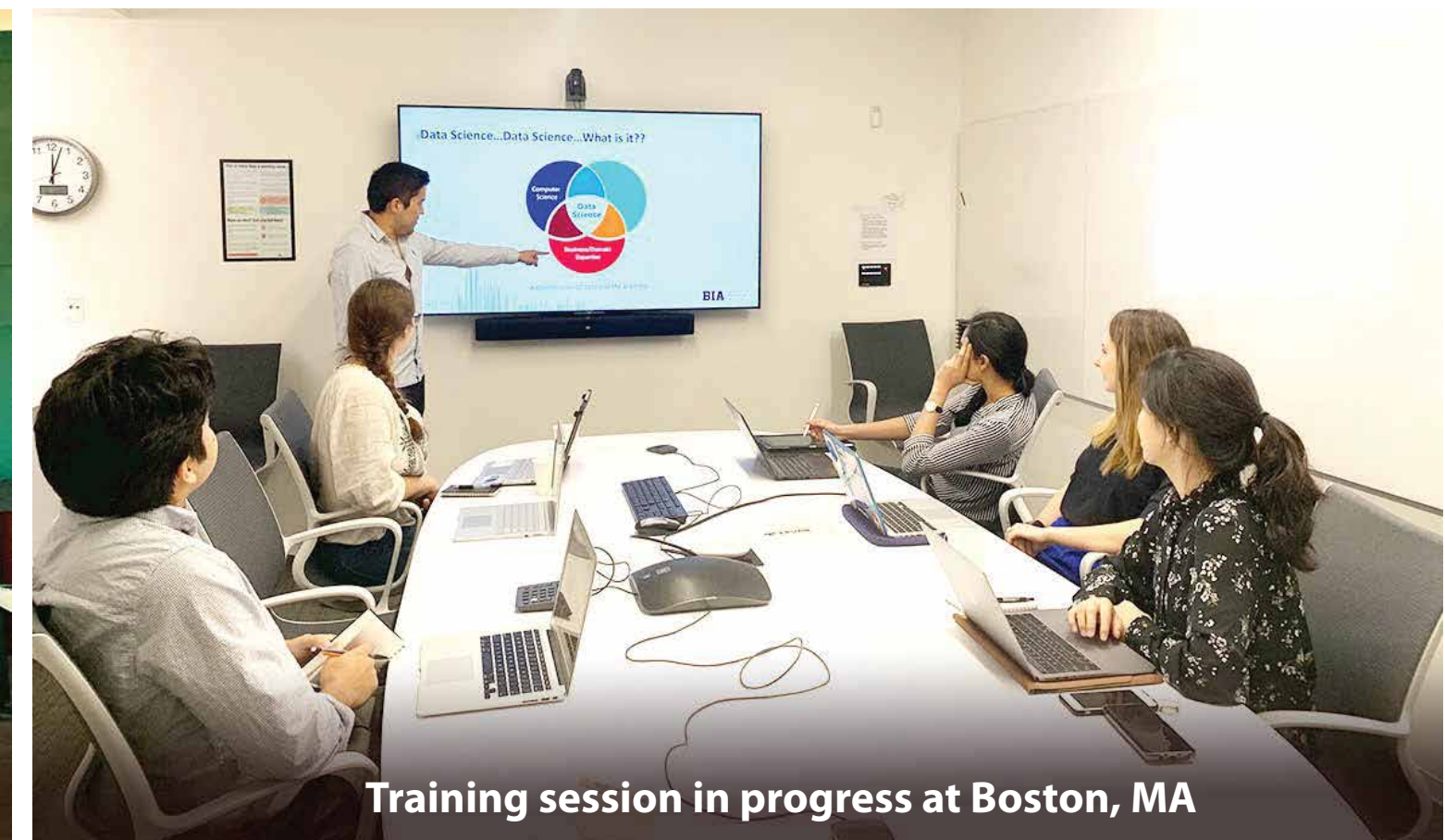
BIA[®] In Action



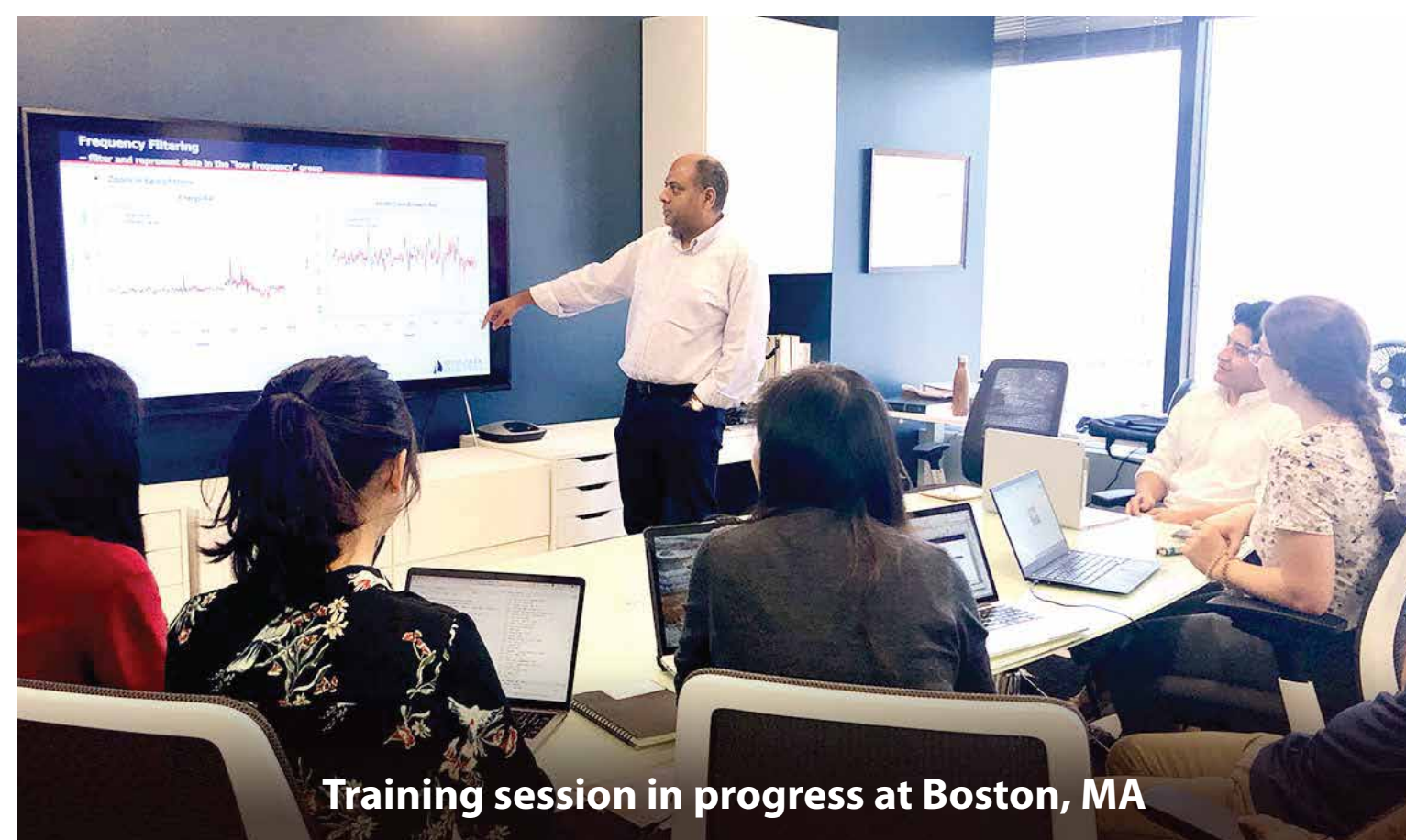
Case Study session at Boston University Questrom School of Business



Case Study session at Boston University



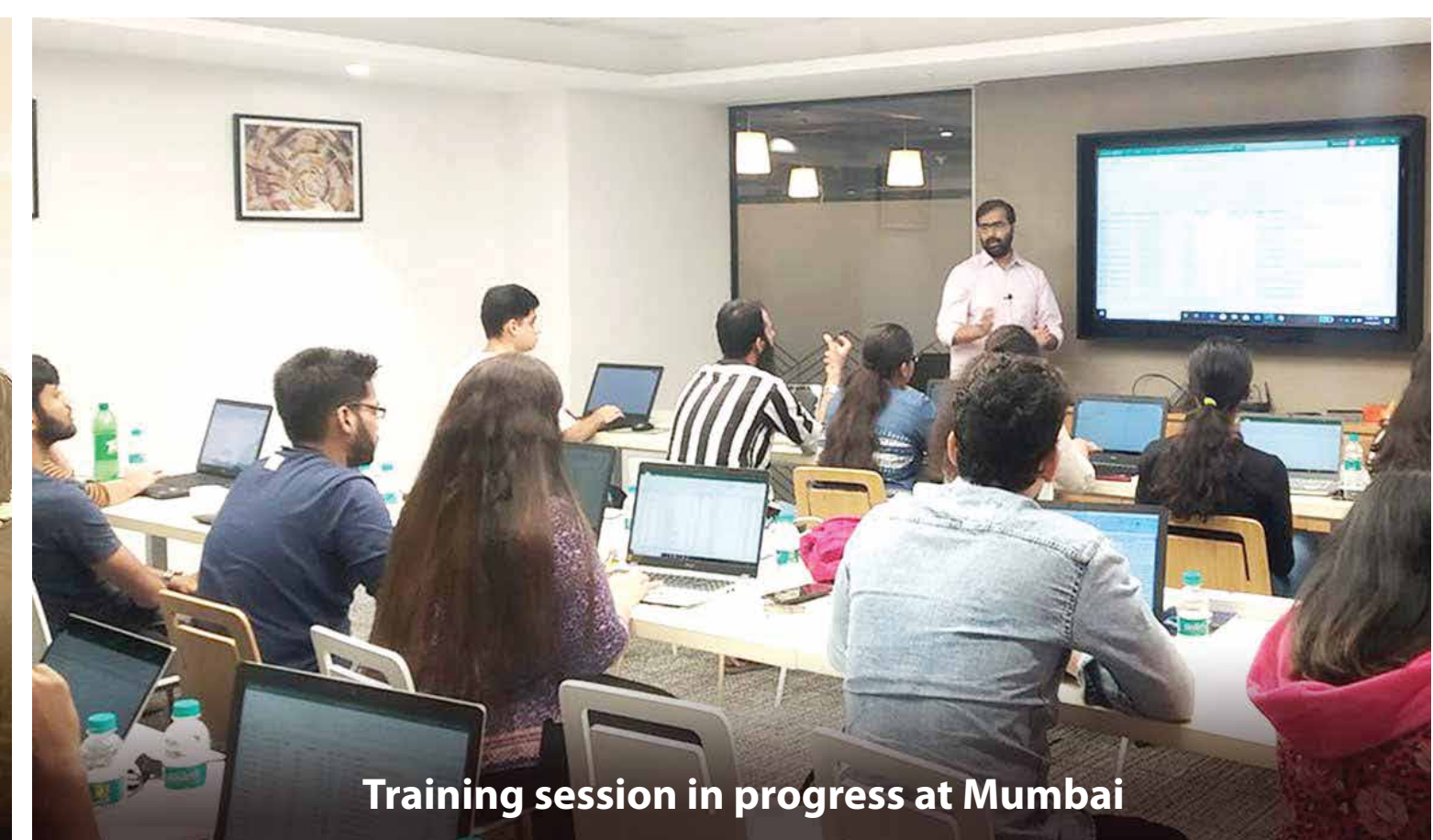
Training session in progress at Boston, MA



Training session in progress at Boston, MA



Industry case study presentation at Boston, MA



Training session in progress at Mumbai

BIA[®] In Action



Training in progress at Boston, MA



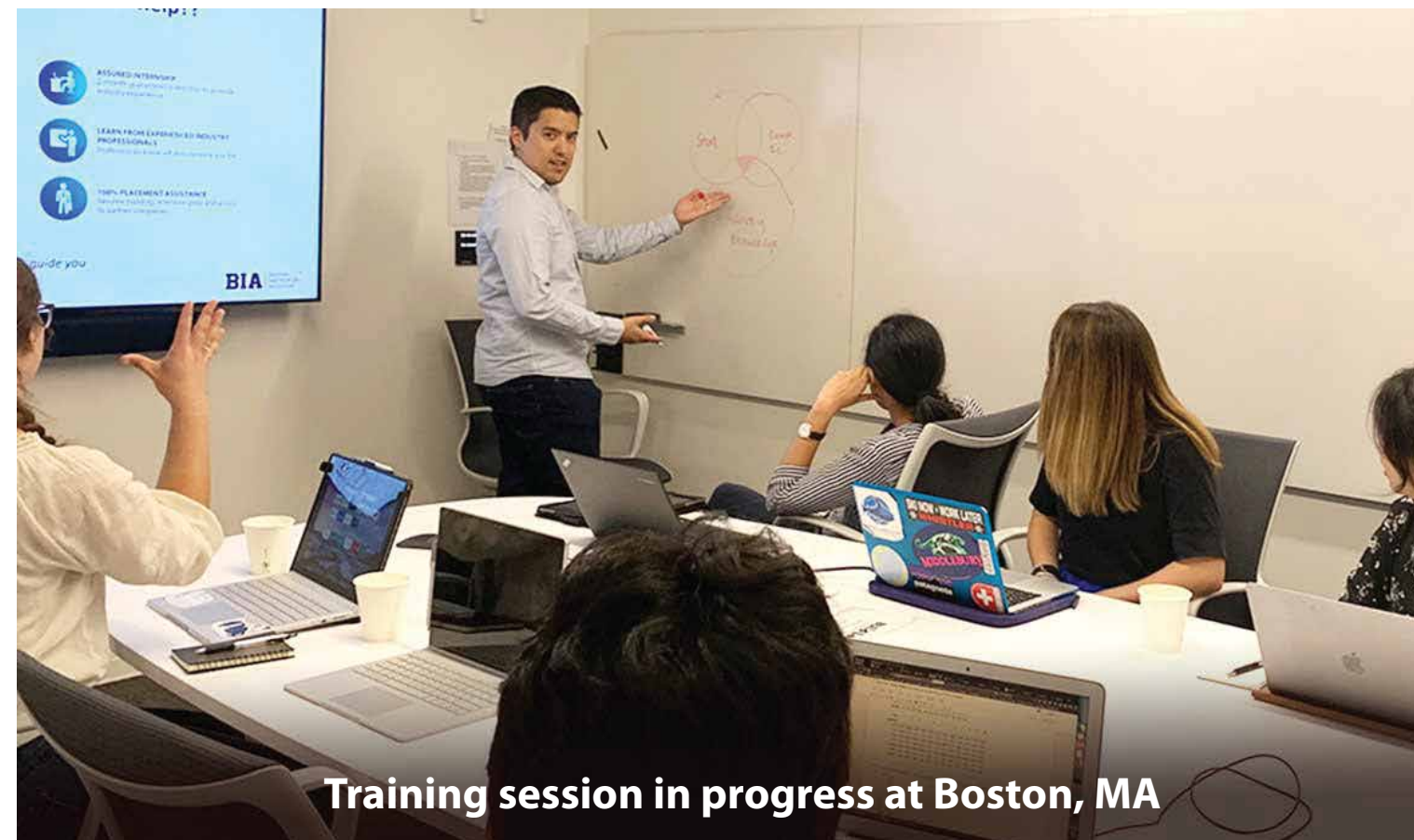
Industry case study presentation in progress



Case Study session at Boston University



Case Study session at Boston University Questrom School of Business



Training session in progress at Boston, MA



Session in progress at Boston, MA

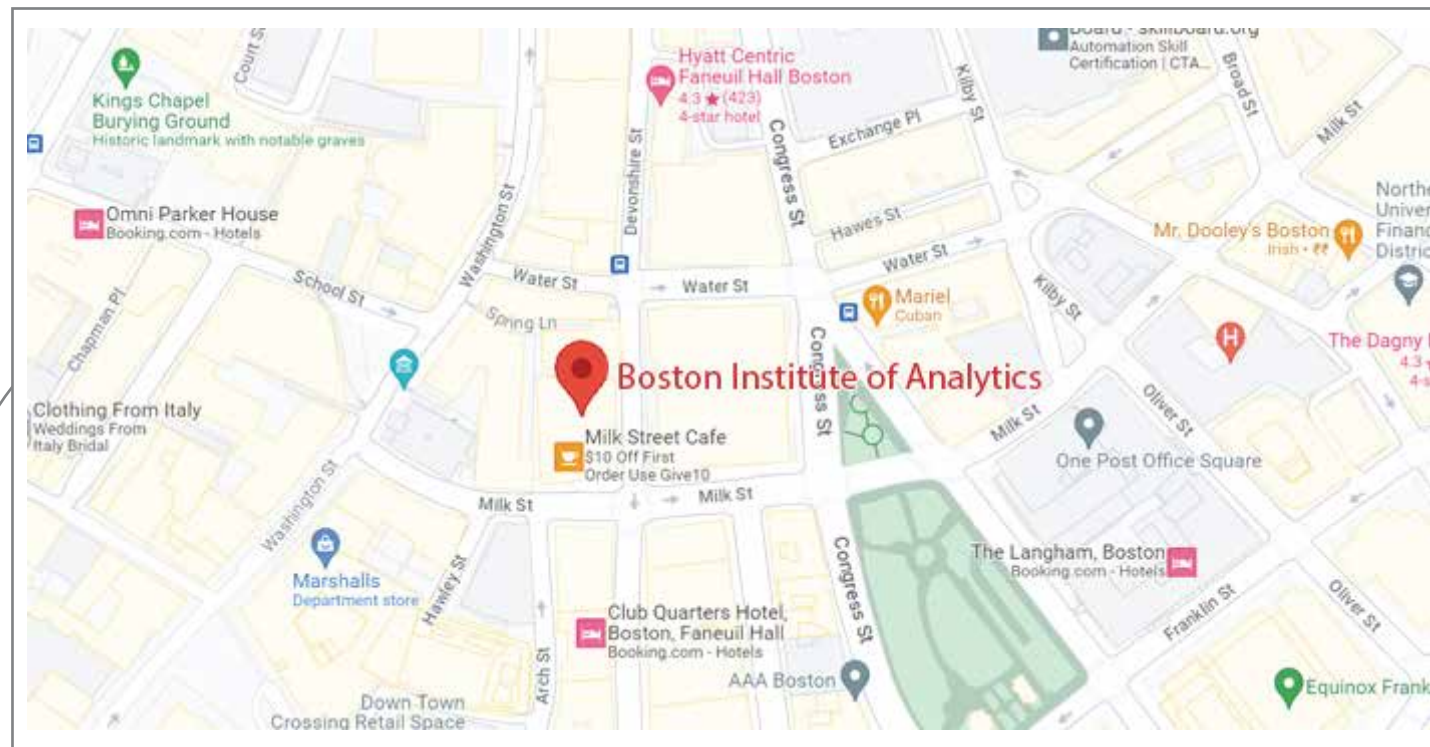
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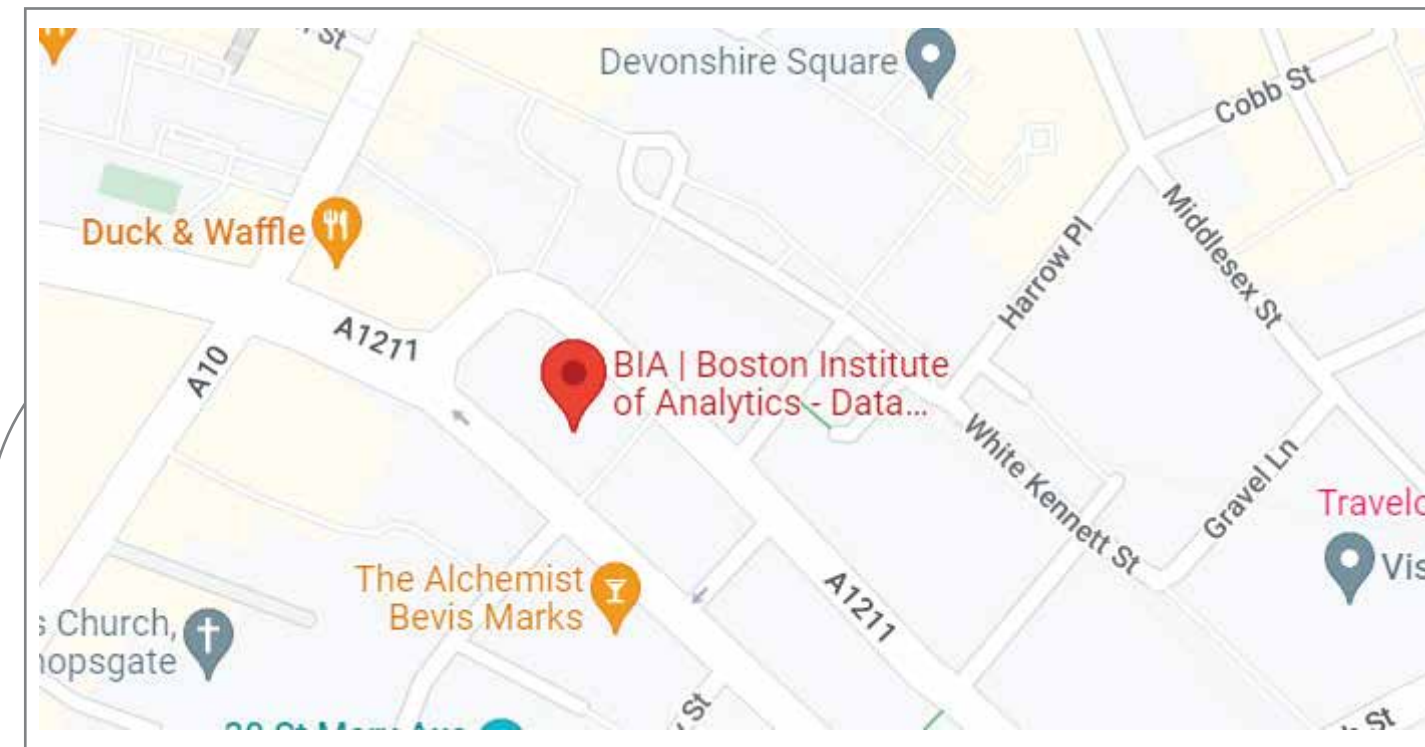
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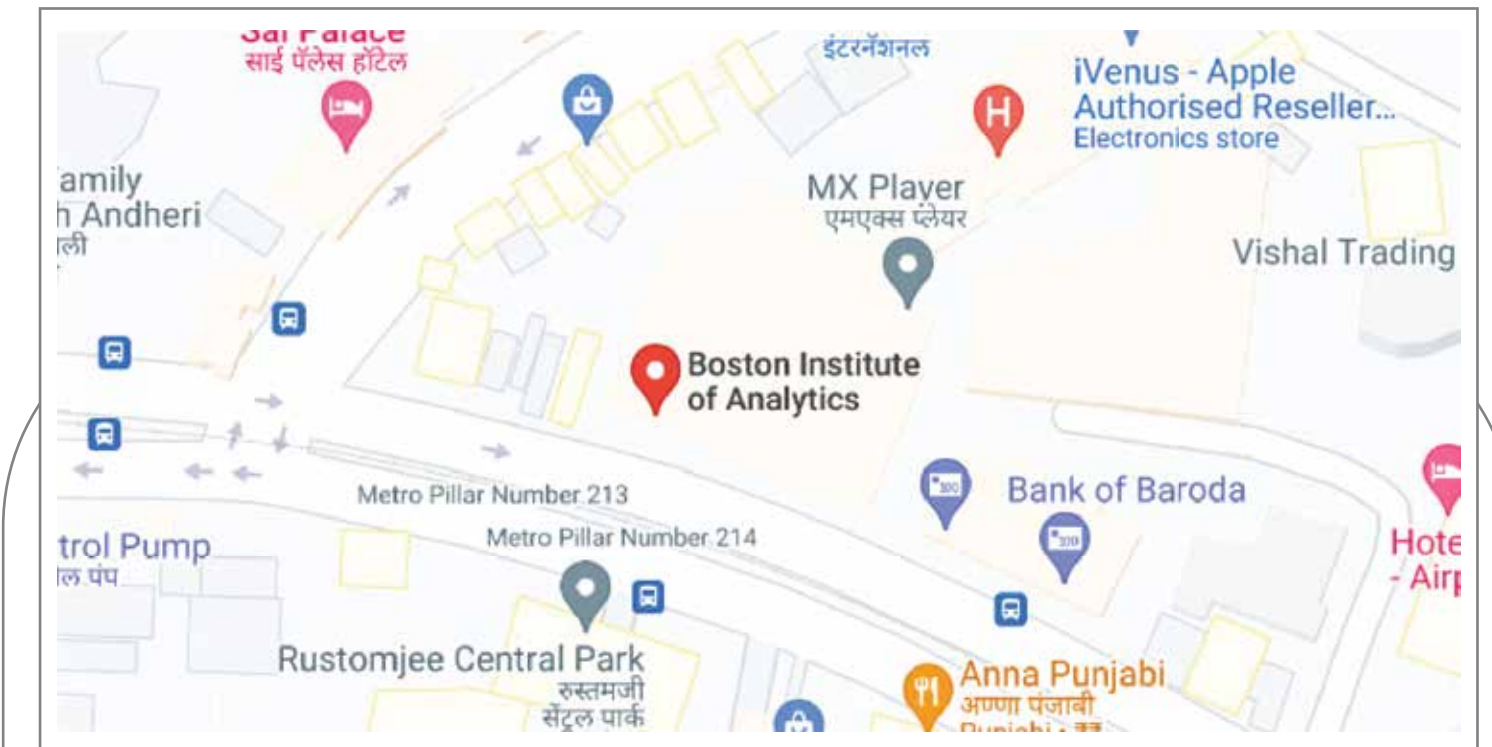
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