

Cybersecurity Engineer

Defend applications, networks and cloud environments using modern security operations, testing and incident response.



16 weeks

DURATION

8 phases

CURRICULUM

Capstone

INTEGRATED PROJECT

ABOUT THE ACADEMY

Practical learning. Work you can demonstrate.

Brightnest AI Academy brings live instruction, guided practice and career preparation together for individuals and teams.

23

FOCUSED COURSES

6

FLAGSHIP PROGRAMMES

Noida

ACADEMY LOCATION

Our approach

1

Learn

Understand concepts through live instruction and current examples.

2

Build

Apply learning through labs, assignments and guided projects.

3

Explain

Document decisions, results, trade-offs and limitations.

4

Prepare

Connect completed work with CVs, interviews and workplace conversations.

PEOPLE BEHIND THE ACADEMY

Meet Ranjeet Kumar



ACADEMY ADVISER

Ranjeet Kumar

Innovation & Growth Leader

15+ years

Experience in data, artificial intelligence and machine learning leadership.

Areas of expertise

- Data science and machine learning solution leadership
- AI product strategy and scalable data platforms
- Technology team leadership and mentorship
- Practical AI and data adoption for business transformation

Education

Master of Information Systems, Anna University, Chennai
Bachelor of Computer Science Engineering

PROGRAMME OVERVIEW

Build your next set of skills

Develop the practical judgment to prevent attacks, detect threats and respond with evidence.

Who this is for

Students, IT professionals, network administrators and career switchers targeting cybersecurity, SOC, incident response or cloud security roles.

Before you begin

Basic computer literacy is required. Networking and operating-system foundations are taught before advanced security operations.

Target roles: Cybersecurity Analyst / SOC Analyst / Security Engineer



LEARNING OUTCOMES

What you will be able to do

01

Build security, networking, IAM, vulnerability and operations foundations.

02

Understand offensive techniques through authorised labs and professional reporting.

03

Investigate telemetry, engineer detections and respond to incidents.

04

Secure cloud identities, networks, data and workloads.

05

Embed security in CI/CD, containers and infrastructure as code.

06

Use ATT&CK, threat intelligence and hunting to improve detection coverage.

07

Run an attack/defend scenario and validate preventive/detective controls.

08

Secure and investigate a hybrid/cloud application environment end to end.



CURRICULUM

Your eight-phase pathway

8 phases · 16 weeks · Includes an integrated capstone

01 Cybersecurity Foundations

TOPICS

Cybersecurity Foundations and Risk · Networking for Cybersecurity · Operating System and Endpoint Security · Identity, Access and Authentication · Vulnerability Management and Security Testing · Cryptography and Data Protection · Security Operations and Monitoring · Incident Response, Resilience and Capstone

PHASE OUTCOME

Build security, networking, IAM, vulnerability and operations foundations.

RELATED COURSE CONTENT

Cybersecurity & Network Security Foundations

Related course content supports this phase. Confirm the cohort-specific learning plan with admissions.

02 Ethical Hacking

TOPICS

Ethics, Scope and Penetration Testing Methodology · Reconnaissance and Attack Surface Mapping · Scanning, Enumeration and Vulnerability Validation · Network and Host Exploitation Concepts · Web Application Security and OWASP Risks · Authentication, API and Cloud-Native Attack Surface · Exploitation Workflow, Evidence and Remediation · Penetration Testing Capstone

PHASE OUTCOME

Understand offensive techniques through authorised labs and professional reporting.

RELATED COURSE CONTENT

Ethical Hacking & Penetration Testing

Related course content supports this phase. Confirm the cohort-specific learning plan with admissions.



CURRICULUM

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03 SOC + Detection

PHASE OUTCOME

Investigate telemetry, engineer detections and respond to incidents.

RELATED COURSE CONTENT

SOC Analyst & Incident Response

This phase uses selected topics from the related course references; the complete course syllabus is not implied.

04 Cloud Security

TOPICS

Cloud Security Architecture and Shared Responsibility · Cloud IAM and Privileged Access · Network and Perimeter Security · Data, Secrets and Key Security · Workload, Container and Serverless Security · DevSecOps, CSPM and Cloud Posture · Cloud Detection, Incident Response and Forensics · Governance, Compliance and Cloud Security Capstone

PHASE OUTCOME

Secure cloud identities, networks, data and workloads.

RELATED COURSE CONTENT

Cloud Security Engineering

Related course content supports this phase. Confirm the cohort-specific learning plan with admissions.



CURRICULUM

Your eight-phase pathway

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05 DevSecOps Integration

PHASE OUTCOME

Embed security in CI/CD, containers and infrastructure as code.

RELATED COURSE CONTENT

DevOps, Kubernetes & Cloud Platform Engineering

This phase uses selected topics from the related course references; the complete course syllabus is not implied.

06 Threat-Led Defense

PHASE OUTCOME

Use ATT&CK, threat intelligence and hunting to improve detection coverage.

RELATED COURSE CONTENT

SOC Analyst & Incident Response

This phase uses selected topics from the related course references; the complete course syllabus is not implied.

07 Purple-Team Sprint

PHASE OUTCOME

Run an attack/defend scenario and validate preventive/detective controls.

Applied sprint or integrated capstone; no separate focused-course module list is specified.

CURRICULUM

Your eight-phase pathway

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08 Flagship Capstone

PHASE OUTCOME

Secure and investigate a hybrid/cloud application environment end to end.

Applied sprint or integrated capstone; no separate focused-course module list is specified.

APPLIED PORTFOLIO

Portfolio project examples

Illustrative options from the master pathway. Confirm your cohort's project selection with admissions.

PROJECT EXAMPLE 1

Small Business Security Baseline

Assess network, endpoints, IAM, vulnerabilities and monitoring and create an improvement roadmap.

DELIVERABLES

Risk register · hardening checklist · monitoring plan · IR playbook.

PROJECT EXAMPLE 2

Authorized Multi-Service Penetration Test

Test a vulnerable network/web/API lab and produce a client-style report.

DELIVERABLES

Rules of engagement · evidence · findings · remediation · retest results.

APPLIED PORTFOLIO

Portfolio project examples

Illustrative options from the master pathway. Confirm your cohort's project selection with admissions.

PROJECT EXAMPLE 3

SOC Detection and Response Challenge

Detect and investigate a simulated attack from endpoint/network/cloud logs.

DELIVERABLES

Detection rules · timeline · incident report · response actions.

PROJECT EXAMPLE 4

Secure Cloud Application Blueprint

Harden IAM, network, data, workloads and CI/CD for a cloud application.

DELIVERABLES

Threat model · IaC/security controls · logging · incident plan.

FLAGSHIP CAPSTONE

Enterprise Threat Detection & Incident Response Lab

Learners integrate the complete pathway into a production-style capstone with a clear brief, architecture or process design, working implementation, testing or evaluation evidence, documentation, mentor review and a final technical or business presentation.

Bring the pathway together

Integrate the pathway into one production-style capstone that demonstrates architecture or process design, implementation, testing or evaluation, documentation, responsible practice and a final presentation.

LEARNING EXPERIENCE

Learn, practise and present

- Live classes that connect concepts to practical applications.
- Guided labs, projects and mentor feedback.
- An integrated flagship capstone with documentation and presentation.
- Career preparation based on completed work and target roles.

CAREER PREPARATION

Build confidence for interviews

A structured process to connect your learning with your next career step.

01**Role clarity**

Identify roles that fit your background, interests and current skills.

02**Profile readiness**

Review your CV, LinkedIn, GitHub and project summaries.

03**Project proof**

Prepare to demonstrate completed work and explain your decisions.

04**Interview practice**

Practise technical questions, project walkthroughs and interviews.

05**Opportunity updates**

Receive relevant job openings and employer requirements, subject to availability and learner readiness.

Career support helps you prepare. Employment outcomes depend on experience, project quality, interview readiness and market conditions.

LEARNER JOURNEYS

Companies where our learners have been hired

Across the Brightnest AI Academy learner community



Learner employment history across the academy; not a placement guarantee for this course. Names and logos identify employers; they do not imply endorsement or a hiring partnership.

BEFORE YOU ENROL

Your questions, answered

How long does the programme take?

The flagship programme runs over 16 weeks.

Are all related courses mandatory?

Some phases use selected topics or alternative course options. Follow the phase-specific guidance and confirm your cohort's learning plan with admissions.

What will I build?

Learners integrate the complete pathway into a production-style capstone with a clear brief, architecture or process design, working implementation, testing or evaluation evidence, documentation, mentor review and a final technical or business presentation.

What support is available?

Live classes, labs, projects, capstone review, mentor feedback and career preparation are part of the learning approach.

FEES & ADMISSIONS

Plan your next step

PROGRAMME FEE

INR 60,000 + GST

EMI and easy instalments available

Duration	16 weeks
Level	Intermediate-Advanced
Learning format	Live mentor-led learning
Batch starts	Expected Saturday / Sunday starts

Check the live Batches page for the next expected weekend. Confirm the exact date, class times and availability with admissions.

Book a free demo class >

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brightnestaiacademy.com/batches

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