

GENQUANTAA ACADEMY

MASTERCLASS SERIES

MASTERCLASS #1

FORWARD DEPLOYED ENGINEER

Build AI Where the Work Happens.

Move from ticket-based engineering to real-world AI delivery.



8 WEEKS

Structured, hands-on learning



INDUSTRY MENTORS

Learn from industry practitioners



13-STAGE ROADMAP

From problem to production



REAL-WORLD CAPSTONE

Build. Deploy. Show impact.

SKILLS
SOLUTIONS
PRODUCTION
BUSINESS IMPACT

AI SOLUTIONS

PRODUCTION

BUSINESS IMPACT

REAL PROBLEMS
REAL SOLUTIONS
REAL IMPACT

A BRIGHTER
TOMORROW
BUILDS HERE



LEARN

Gain practical skills



PRACTICE

Work on real use cases



BUILD

Create AI-powered solutions



DEPLOY

Take solutions to production



DELIVER

Create measurable business impact

ENGINEERING x AI x PRODUCT x BUSINESS x CUSTOMERS



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PEOPLE | IDEAS | SOLUTIONS
FOR A BRIGHTER TOMORROW

FROM ENGINEERING TASKS TO REAL-WORLD AI DELIVERY

Learn to understand the problem, design the solution, build the system, and deliver it into production.

What is this Masterclass?

The Forward Deployed Engineer (FDE) Masterclass is an industry-focused, hands-on program designed for engineers who want to move beyond ticket-based development and work at the intersection of technology, AI, product, business, and customers.

You will learn how to:

- Understand real business problems
- Translate business needs into technical requirements
- Identify where AI can create value
- Design end-to-end solutions
- Build full-stack AI applications
- Integrate APIs, data, and AI models
- Deploy solutions to the cloud
- Work with customers and stakeholders
- Validate production readiness
- Measure business impact
- Iterate based on feedback

The FDE Mindset



DON'T JUST LEARN AI.
LEARN HOW TO TAKE AI FROM A CUSTOMER PROBLEM TO A PRODUCTION SOLUTION.

SAME
PROBLEMS.
BIGGER
POSSIBILITIES.

THE ENGINEER AT THE INTERSECTION OF TECHNOLOGY & BUSINESS

Forward Deployed Engineers solve real customer problems by combining engineering, AI, product thinking, and business understanding.

The FDE Role

An FDE works directly with customers and business teams to understand problems, design solutions, build AI-powered applications, and drive them toward production.

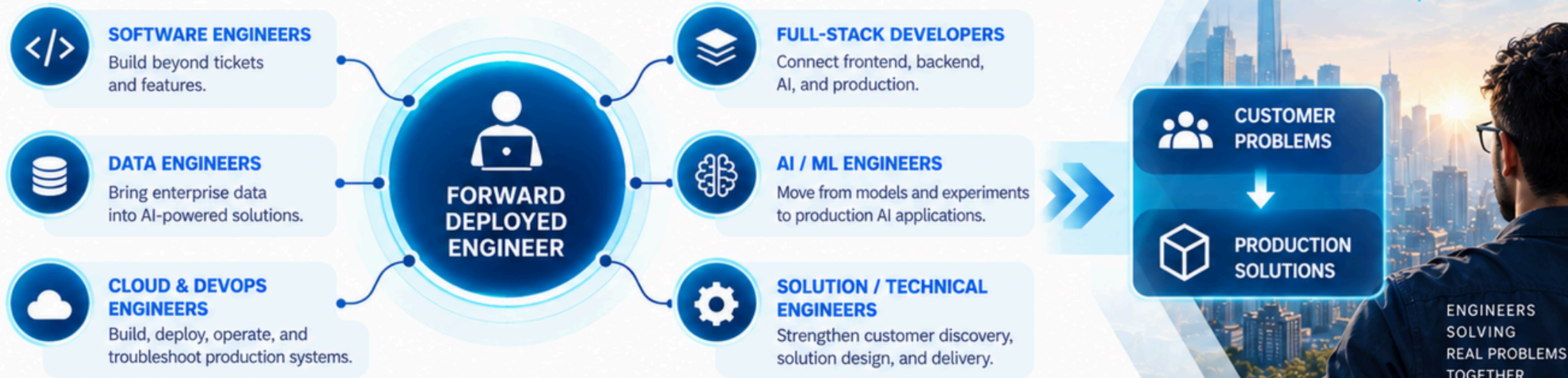


TRADITIONAL ENGINEERING	vs	FORWARD DEPLOYED ENGINEERING
Defined technical requirements	→	Discovers the real problem
Ticket-driven execution	→	Problem-driven execution
Primarily engineering-focused	→	Engineering + AI + business
Builds within defined scope	→	Helps define the solution
Hands off after development	→	Stays close to deployment & impact
Technical output	→	Business outcome



WHO IS THIS MASTERCLASS FOR?

Built for engineers ready to move from building features to solving real-world problems.



IDEAL FOR PROFESSIONALS WITH 2+ YEARS OF EXPERIENCE

Engineers and technical professionals who want to develop AI-first engineering skills and move toward customer-facing technical roles.

ALSO RELEVANT FOR

- Experienced Developers**: Looking to move toward customer-facing engineering. (Icon: person)
- AI-Focused Professionals**: Interested in AI implementation and production systems. (Icon: brain)
- Technical Consultants**: Wanting stronger engineering and AI delivery capabilities. (Icon: group of people)
- Engineers Preparing for FDE / AI Engineering Roles**: Looking to build an end-to-end delivery mindset. (Icon: bar chart)



YOU DON'T NEED TO BE AN EXPERT IN EVERYTHING.

You need the mindset and ability to connect engineering, AI, customers, and business outcomes.

SAME
PEOPLE.
BIGGER
POSSIBILITIES.

WHY FORWARD DEPLOYED ENGINEERING?

AI is moving from experimentation to real business outcomes.

THEN

Traditional Engineering

-  Clearly defined requirements
-  Ticket-driven development
-  Build to specification
-  Engineering-focused execution
-  Handoff after delivery

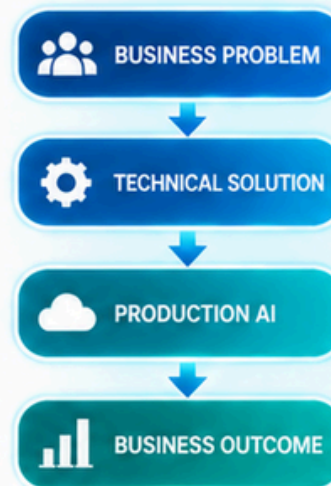
NOW

AI-First Business Problems

-  Ambiguous requirements
-  Real customer problems
-  Rapid experimentation
-  AI + software integration
-  Continuous iteration
-  Production deployment
-  Business outcomes

THE OPPORTUNITY

THE GAP


BUSINESS
NEEDS
FORWARD DEPLOYED
ENGINEER
TECHNOLOG
CAPABILITIES

Organizations need engineers who can bridge the gap between what the business needs and what technology can deliver.

THAT IS WHERE THE FDE FITS.

BRIDGING
TODAY TO A BRIGHTER
TOMORROW


AI
DATA
PLATFORMS
SOLUTIONS

THE FDE VALUE



**THE FDE DOESN'T JUST BUILD TECHNOLOGY.
THE FDE CONNECTS TECHNOLOGY TO BUSINESS OUTCOMES.**

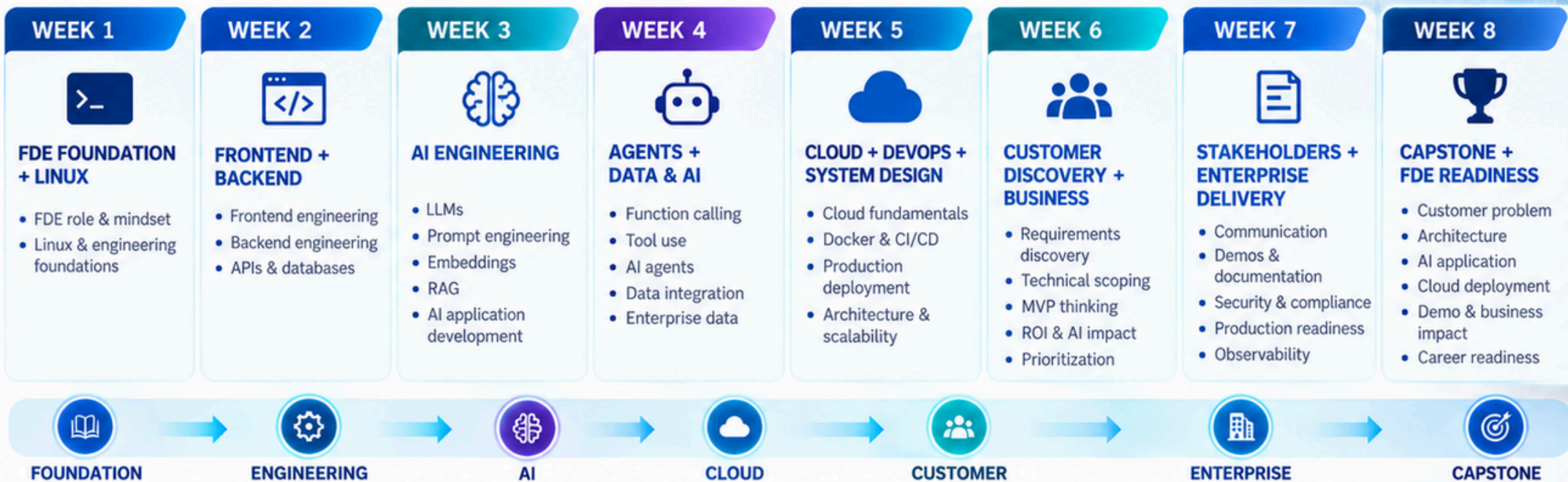
SAME
PROBLEMS.
BIGGER
POSSIBILITIES.

8-WEEK FDE MASTERCLASS

From Foundations to Production AI

BUILDS TODAY
REAL IMPACT
TOMORROW

A structured journey across engineering, AI, cloud, system design, customers, business, and enterprise delivery.



8 WEEKS • 13-STAGE ROADMAP • END-TO-END CAPSTONE

The 13-stage curriculum is distributed across an 8-week learning journey, with related stages combined into focused weekly themes.



DON'T LEARN EACH SKILL IN ISOLATION.

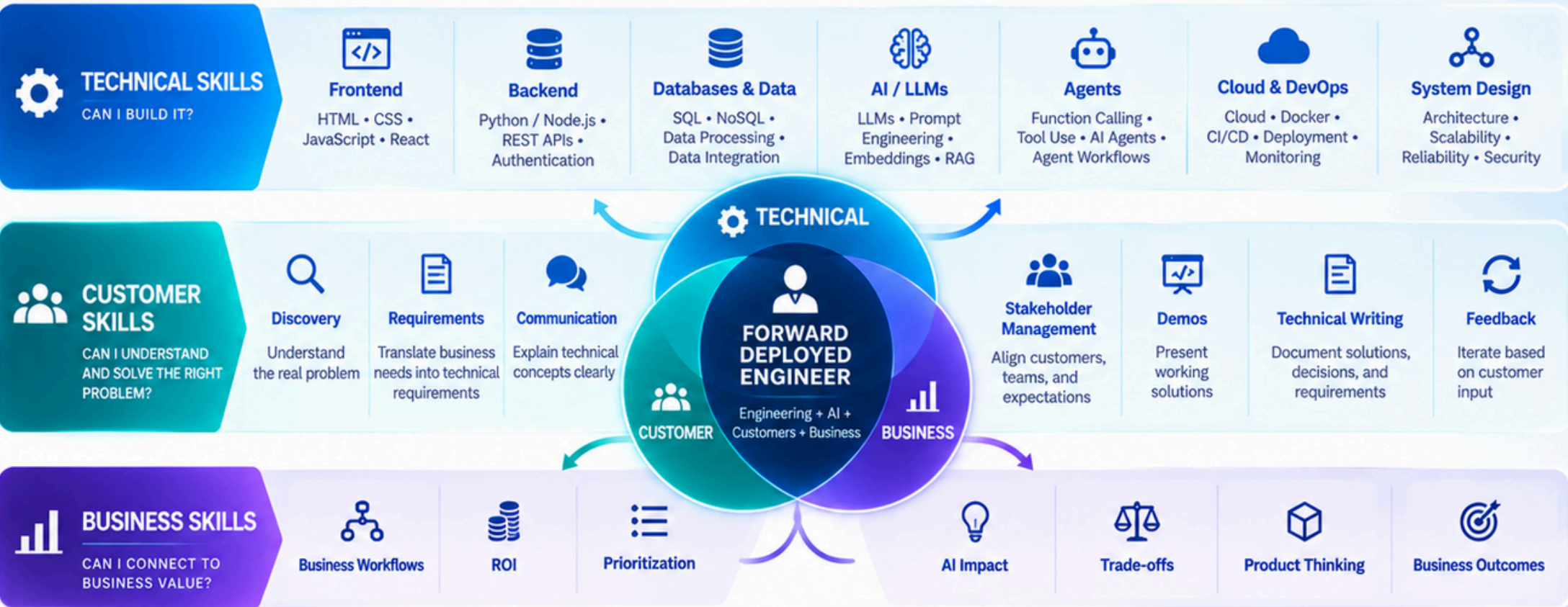
Learn how engineering, AI, data, cloud, customers, and business come together in a real FDE delivery cycle.

SAME
SKILLS.
BIGGER
POSSIBILITIES.

THE FDE SKILL STACK

A multidisciplinary skill set for solving real customer problems with technology and AI.

BUILD
SOLVE
DEPLOY
CREATE IMPACT



THE FDE IS NOT JUST A TECHNOLOGY SPECIALIST.

The role combines technical execution with customer understanding and business thinking.

REAL
PROBLEMS.
REAL SOLUTIONS.
BRIGHTER
TOMORROW.

THE COMPLETE FDE ROADMAP

13 stages from FDE foundations to an end-to-end production capstone.

SAME
SKILLS.
BIGGER
POSSIBILITIES

BUILD

SOLID FOUNDATION. REAL SKILLS.

AI & PRODUCTION

BUILD INTELLIGENT SOLUTIONS.

CUSTOMER & BUSINESS

SOLVE REAL PROBLEMS.

ENTERPRISE & DELIVERY

DELIVER LASTING IMPACT.

01



FDE FOUNDATION

Understand the FDE role, responsibilities, mindset, and career landscape.

02



LINUX & ENGINEERING FOUNDATIONS

Linux, shell, networking, processes, SSH, environments, logs, and troubleshooting.

03



FRONTEND ENGINEERING

HTML, CSS, JavaScript, React, components, state, APIs, authentication, and AI interfaces.

04



BACKEND ENGINEERING

Python / Node.js, REST APIs, authentication, databases, integrations, async processing, logging, and security.

05



AI ENGINEERING

LLMs, prompt engineering, embeddings, vector databases, RAG, function calling, agents, evaluation, guardrails, and observability.

06



DATA & AI INTEGRATION

Data ingestion, APIs, structured/unstructured data, SQL, pipelines, enterprise data, retrieval, security, and data quality.

07



CLOUD & DEVOPS

Cloud platforms, containers, Docker, CI/CD, infrastructure, secrets, monitoring, deployment, and production troubleshooting.

08



SYSTEM DESIGN

Architecture, APIs, scalability, reliability, security, caching, queues, databases, microservices, RAG architecture, and agent troubleshooting.

09



CUSTOMER DISCOVERY & SCOPING

Requirements gathering, discovery, scoping, MVP definition, milestones, constraints, risks, estimation, and prioritization.

10



BUSINESS ACUMEN

Business workflows, ROI, AI impact, cost vs value, automation opportunities, build vs buy, and product thinking.

11



STAKEHOLDER MANAGEMENT & COMMUNICATION

Customer communication, technical communication, demos, documentation, architecture presentations, expectations, feedback, and difficult conversations.

12



ENTERPRISE DELIVERY

Security, compliance, access management, production readiness, reliability, observability, incident handling, change management, and customer acceptance.

13



CAPSTONE PROJECT

Simulated customer problem, requirements, architecture, frontend, backend, enterprise data, RAG / agents, authentication, cloud, monitoring, demo, ROI, and iteration.

14



FDE CAREER READINESS

Real Problems. Real Solutions. A Brighter Tomorrow.



FOUNDATION



ENGINEERING



AI



DATA



CLOUD



SYSTEM DESIGN



CUSTOMER



BUSINESS



ENTERPRISE



CAPSTONE

FROM CUSTOMER PROBLEM TO PRODUCTION AI

The roadmap connects technical engineering with AI, cloud, customer discovery, business thinking, and enterprise delivery.

SKILLS
TODAY.
IMPACT
TOMORROW.



WEEKS 1-2 | ENGINEERING FOUNDATIONS

Build the engineering foundation required to operate, develop, and ship real applications.

STRONG
FOUNDATIONS
BRIGHTER
POSSIBILITIES.

WEEK 1

UNDERSTAND. EXPLORE. SET THE FOUNDATION.

FDE FOUNDATION + LINUX



FDE Foundation

- What is an FDE?
- FDE vs Software Engineer
- FDE vs AI Engineer
- FDE vs Solutions Engineer
- From Engineer to FDE
- FDE roles & responsibilities
- FDE career landscape
- What companies expect



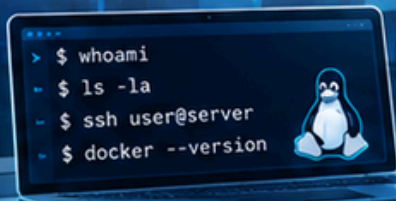
Linux & Engineering Foundations

- Linux fundamentals
- Shell commands
- Processes & filesystems
- Networking
- Environment variables
- SSH
- Package management
- Production debugging
- Logs & troubleshooting



WEEK 1 OUTCOME

Understand the FDE role and operate confidently in real engineering environments.



SOLID
ENGINEERING
FOUNDATIONS
FOR REAL-WORLD
DELIVERY



FDE MINDSET



LINUX



FRONTEND



BACKEND



FULL-STACK FOUNDATION



NEXT →



AI ENGINEERING



FROM FOUNDATIONS TO AI.

Master the essentials. Build real applications. Get ready for AI.

WEEK 2

BUILD. INTEGRATE. BRING TOGETHER.

FRONTEND + BACKEND ENGINEERING



Frontend Engineering

- HTML / CSS / JavaScript
- React
- Component architecture
- State management
- API integration
- Authentication
- Forms & validation
- Error handling
- AI-powered interfaces
- Production frontend practices



Backend Engineering

- Python / Node.js
- REST APIs
- API architecture
- Authentication & authorization
- SQL & databases
- NoSQL
- System integrations
- Async processing
- Error handling
- Logging
- API security



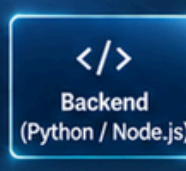
WEEK 2 OUTCOME

Build usable customer-facing applications with production-ready backend services.



Frontend
(React)

API



Backend
(Python / Node.js)

→



Database
(SQL / NoSQL)

BUILD
INTEGRATE
DEPLOY
REAL
APPLICATIONS

WEEKS 3-4 | AI ENGINEERING + DATA

Move from AI experimentation to reliable, data-connected AI applications.

FROM DATA
TO INTELLIGENCE
FROM IDEAS
TO IMPACT

WEEK 3

LEARN. EXPERIMENT. BUILD AI CAPABILITIES.

AI ENGINEERING

- 01  **LLMs**
Understand modern large language model applications.
- 02  **PROMPT ENGINEERING**
Design effective prompts and application behavior.
- 03  **EMBEDDINGS + VECTOR DATABASES**
Build semantic retrieval capabilities.
- 04  **RAG**
Connect AI applications to relevant enterprise knowledge.
- 05  **FUNCTION CALLING + TOOL USE**
Enable models to interact with external systems.
- 06  **AI AGENTS**
Build agent workflows that can reason and execute tasks.
- 07  **EVALUATION + GUARDRAILS**
Improve reliability, safety, and application quality.
- 08  **OBSERVABILITY + OPTIMIZATION**
Monitor AI behavior and optimize cost and latency.



WEEK 3 OUTCOME

Build reliable AI applications—not just simple chatbots.

WEEK 4

CONNECT. INTEGRATE. BUILD AGENTIC SYSTEMS.

AGENTS + DATA & AI INTEGRATION



Agentic AI

- AI agent workflows
- Tool use
- Function calling
- Context management
- Agent orchestration
- Multi-step task execution



Data & AI Integration

- Data ingestion
- APIs
- Structured & unstructured data
- Data processing
- SQL
- Data pipelines
- Enterprise data integration
- Retrieval pipelines
- Security
- Data quality



WEEK 4 OUTCOME

Connect enterprise data and systems with AI-powered applications and agent workflows.

FROM DATA TO PRODUCTION AI — A REAL-WORLD ARCHITECTURE



WEEK 3
AI ENGINEERING



WEEK 4
AGENTS + DATA



NEXT
CLOUD + DEVOPS + SYSTEM DESIGN



FROM LLMs TO PRODUCTION AI

Learn how models, retrieval, enterprise data, tools, and agent workflows come together inside real applications.

SAME
SKILLS.
BIGGER
POSSIBILITIES.

WEEK 5 | CLOUD, DEVOPS + SYSTEM DESIGN

Take AI applications from code to reliable production systems.

 DESIGN
DEPLOY
OPERATE
CREATE IMPACT

CLOUD + DEVOPS

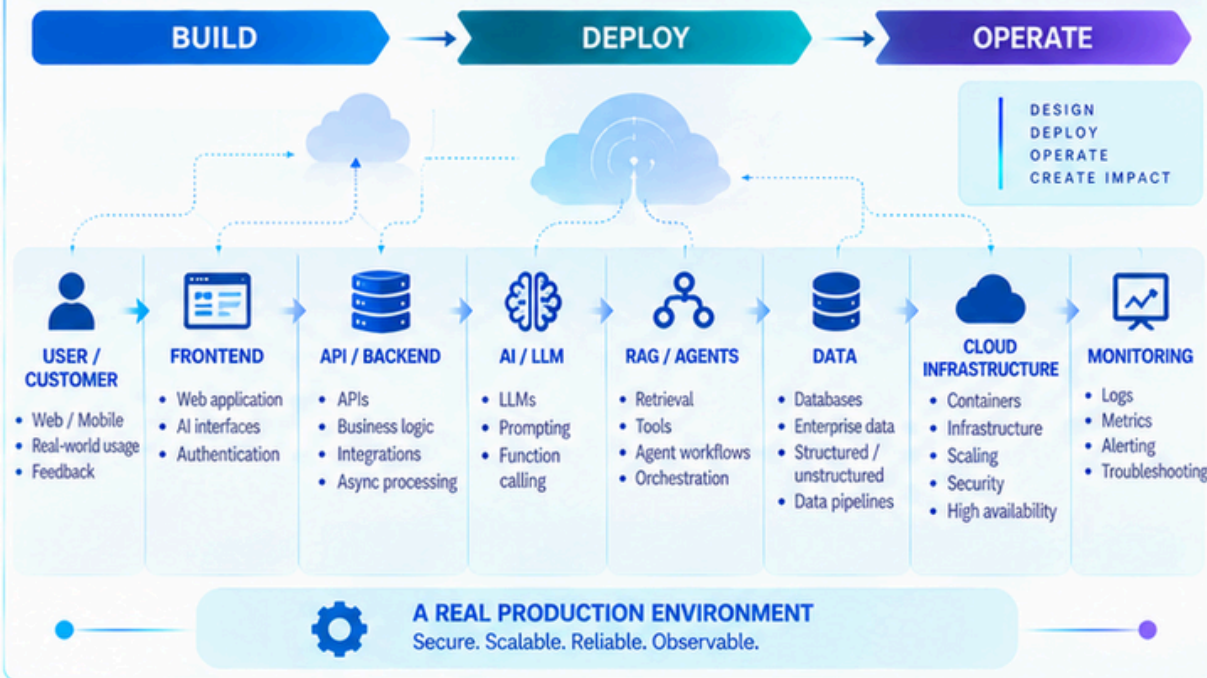
BUILD. DEPLOY. OPERATE.

-  **CLOUD FUNDAMENTALS**
AWS / Azure / GCP concepts
-  **CONTAINERS**
Docker and containerized applications
-  **CI/CD**
Automated build, test, and deployment workflows
-  **INFRASTRUCTURE**
Infrastructure fundamentals and deployment architecture
-  **SECRETS & CONFIGURATION**
Secure application configuration
-  **MONITORING & LOGGING**
Production visibility and troubleshooting
-  **DEPLOYMENT**
Deployment strategies and production releases
-  **PRODUCTION TROUBLESHOOTING**
Diagnose failures and operational issues
-  **IaC CONCEPTS**
Infrastructure as Code fundamentals

 **WEEK 5 OUTCOME**
Deploy and operate AI applications confidently in production environments.

PRODUCTION AI ARCHITECTURE

FROM CODE TO REAL-WORLD IMPACT



 **WEEK 3-4**
AI ENGINEERING + DATA

 **WEEK 5**
CLOUD + DEVOPS + SYSTEM DESIGN

 **WEEK 6**
CUSTOMER DISCOVERY + BUSINESS

SYSTEM DESIGN

DESIGN FOR SCALE. BUILD FOR REALITY.

- 01 REQUIREMENTS → architecture
- 02 API DESIGN
- 03 SCALABILITY
- 04 RELIABILITY
- 05 SECURITY
- 06 CACHING
- 07 QUEUES
- 08 DATABASES
- 09 MICROSERVICES
- 10 AI ARCHITECTURE
- 11 RAG ARCHITECTURE
- 12 AGENT ARCHITECTURE
- 13 COST / PERFORMANCE TRADE-OFFS

 **WEEK 5 OUTCOME**
Design practical solutions before writing the code.



PROTOTYPE IS NOT PRODUCTION.

Learn the cloud, DevOps, architecture, reliability, and operational thinking required to move AI solutions into production.

SAME
SKILLS.
BIGGER
POSSIBILITIES.

WEEK 6 | CUSTOMER DISCOVERY + BUSINESS ACUMEN

Learn to solve the right problem — not just build the requested feature.

SOLVE
TOGETHER
BUILD
A BRIGHTER
TOMORROW.

CUSTOMER DISCOVERY & SCOPING

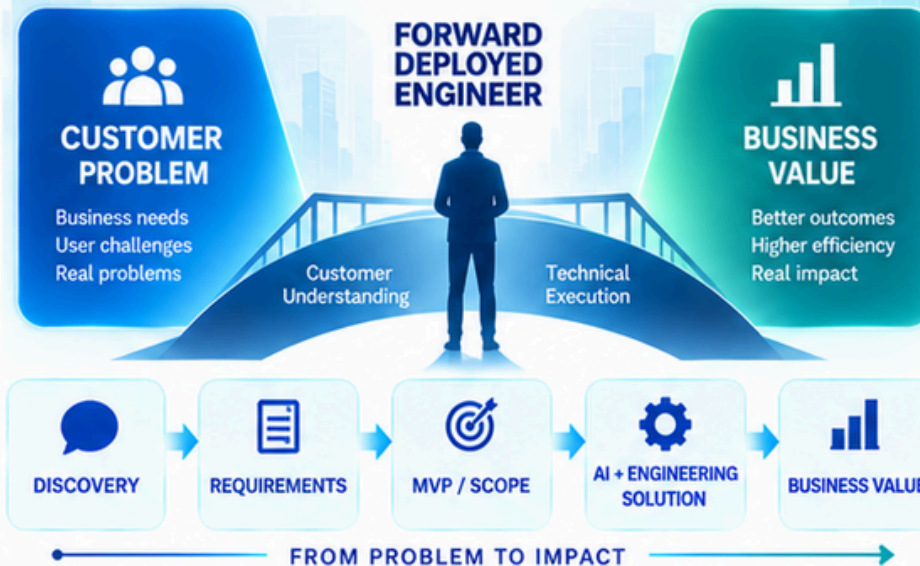
FROM CONVERSATION TO A CLEAR PLAN.

- 1 **DISCOVER**
Understand the customer's real business problem.
- 2 **QUESTION**
Ask the right questions and uncover requirements.
- 3 **DEFINE**
Translate business needs into technical requirements.
- 4 **SCOPE**
Define MVP, milestones, constraints, and risks.
- 5 **PRIORITIZE**
Balance scope, speed, quality, and feasibility.
- 6 **ESTIMATE**
Understand effort, dependencies, and delivery expectations.

OUTCOME
Discover what the customer actually needs instead of simply implementing tickets.

THE FDE BRIDGES CUSTOMER NEEDS AND BUSINESS OUTCOMES

LISTEN | UNDERSTAND | DESIGN | DELIVER



WEEK 5
CLOUD + DEVOPS +
SYSTEM DESIGN

WEEK 6
CUSTOMER DISCOVERY
+ BUSINESS ACUMEN

WEEK 7
STAKEHOLDERS +
ENTERPRISE DELIVERY

BUSINESS ACUMEN

CONNECT TECHNOLOGY DECISIONS TO BUSINESS VALUE.

- BUSINESS WORKFLOWS**
Understand how the organization operates.
- AI OPPORTUNITIES**
Identify where AI and automation can create value.
- ROI**
Connect technical solutions to measurable value.
- COST vs VALUE**
Understand the trade-offs behind solution decisions.
- BUILD vs BUY**
Evaluate practical implementation options.
- PRIORITIZATION**
Focus engineering effort on high-value outcomes.
- PRODUCT THINKING**
Think beyond features toward outcomes.

PRACTICAL FDE QUESTIONS

- WHAT PROBLEM ARE WE SOLVING?
- WHO IS THE USER?
- WHAT DOES SUCCESS LOOK LIKE?
- WHAT IS THE MVP?
- WHAT ARE THE CONSTRAINTS?
- WHAT VALUE WILL THIS CREATE?



**DON'T START WITH THE TECHNOLOGY.
START WITH THE PROBLEM.**

Understand the workflow, identify the opportunity,
define the right solution, and connect it to business value.

SAME
QUESTIONS.
BIGGER
SOLUTIONS.

WEEK 7 | STAKEHOLDERS + ENTERPRISE DELIVERY

Turn working solutions into trusted, production-ready enterprise systems.

STAKEHOLDER MANAGEMENT & COMMUNICATION

ALIGN PEOPLE. BUILD TRUST. DELIVER TOGETHER.



CUSTOMER COMMUNICATION

Communicate clearly with customers throughout delivery.



TECHNICAL COMMUNICATION

Explain technical decisions in a way different audiences can understand.



EXECUTIVE COMMUNICATION

Present complex technology and outcomes clearly to business leaders.



MANAGING EXPECTATIONS

Align scope, timelines, dependencies, and outcomes.



ARCHITECTURE PRESENTATIONS

Explain solution architecture and technical trade-offs.



DOCUMENTATION

Create clear technical documentation and proposals.



DEMOS

Present working solutions and demonstrate value.



FEEDBACK

Capture feedback and translate it into engineering actions.

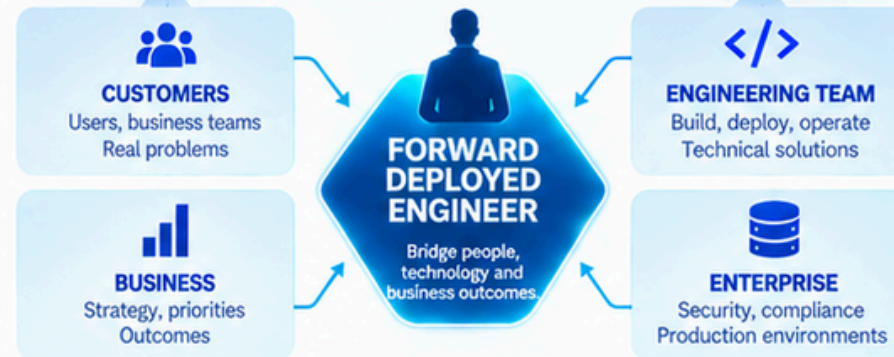


DIFFICULT CONVERSATIONS

Handle ambiguity, constraints, and challenging delivery discussions professionally.

THE FDE CONNECTS EVERYONE

CUSTOMERS | BUSINESS | ENGINEERING | ENTERPRISE



PROTOTYPE TO ENTERPRISE JOURNEY



THE FDE COMMUNICATION LOOP



ENTERPRISE DELIVERY

FROM SOLUTION TO LASTING IMPACT.



SECURITY

Protect applications, data, and access.



COMPLIANCE

Understand enterprise compliance requirements.



ACCESS MANAGEMENT

Control users, permissions, and system access.



PRODUCTION READINESS

Validate that the solution is ready for real users.



RELIABILITY

Design for dependable operation.



OBSERVABILITY

Monitor application and AI-system behavior.



INCIDENT HANDLING

Respond to production issues and failures.



CHANGE MANAGEMENT

Manage changes safely in enterprise environments.



CUSTOMER ACCEPTANCE

Validate that the delivered solution meets expectations.



FEEDBACK LOOPS

Continue improving the solution after deployment.



BUILDING IT IS ONLY PART OF THE JOB.
AN FDE MUST ALSO MAKE IT TRUSTED, USABLE, OPERABLE, AND ACCEPTED.

SAME
SKILLS.
BIGGER
POSSIBILITIES.



WEEK 6

CUSTOMER DISCOVERY + BUSINESS ACUMEN



WEEK 7

STAKEHOLDERS + ENTERPRISE DELIVERY



WEEK 8

CAPSTONE + FDE READINESS



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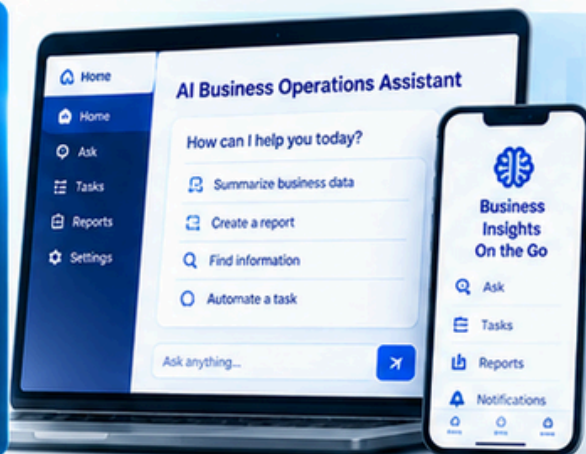
ENGINEER | SOLVE | DELIVER | CREATE IMPACT

WEEK 8 | CAPSTONE + FDE CAREER READINESS

Put the complete FDE journey into one end-to-end production project.

BUILD & DEPLOY AN AI BUSINESS OPERATIONS ASSISTANT

A realistic end-to-end FDE capstone that brings together business understanding, system design, full-stack engineering, AI, data integration, cloud deployment, DevOps, and customer communication.



FROM IDEA TO IMPACT

A COMPLETE, PRODUCTION-READY SOLUTION



SAME
SKILLS.
BIGGER
POSSIBILITIES.

CAPSTONE JOURNEY



WHAT THE CAPSTONE DEMONSTRATES



FDE CAREER READINESS

After completing the journey, learners are positioned to pursue roles such as:

- ✓ Forward Deployed Engineer
- ✓ AI Engineer
- ✓ AI Solutions Engineer
- ✓ AI Application Engineer
- ✓ Full-Stack AI Engineer
- ✓ Solutions Architect
- ✓ Technical Consultant
- ✓ AI Implementation Engineer
- ✓ Customer Engineer
- ✓ Product Engineer



ONE PROJECT. THE COMPLETE FDE JOURNEY.

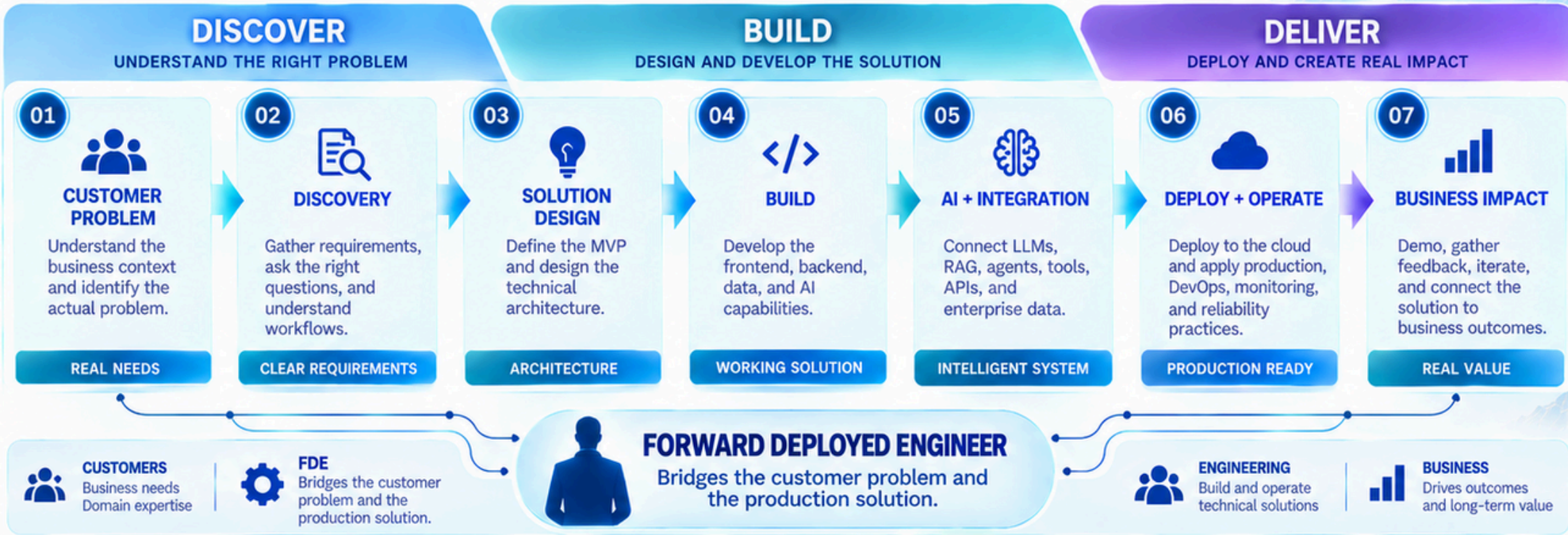
Customer Problem → Discovery → Architecture → AI + Engineering → Cloud → Production → Business Impact.

BRIDGE
TECHNOLOGY
AND BUSINESS
CREATE
REAL IMPACT.

FROM CUSTOMER PROBLEM TO PRODUCTION AI

The FDE delivery journey connects discovery, engineering, AI, deployment, and business impact.

IDEAS
TO SOLUTIONS
SOLUTIONS
TO IMPACT



THINK LIKE AN FDE

Don't ask only: "What should I build?"	Also ask: "What problem are we solving?"	Then: "How do we deliver the right solution into the real world?"
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LEARN → PRACTICE → BUILD → DEPLOY → DELIVER

Every stage of the Masterclass is designed to contribute to this end-to-end delivery mindset.

 LEARN Concepts and skills	 PRACTICE Hands-on application	 BUILD Real solutions	 DEPLOY To production	 DELIVER Business impact
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THE CAPSTONE PROJECT

BUILD AND DEPLOY AN AI BUSINESS OPERATIONS ASSISTANT

A realistic end-to-end FDE project designed to bring together engineering, AI, data, cloud, customer discovery, and business thinking.

PEOPLE
TECHNOLOGY
SOLUTIONS
REAL IMPACT

PROJECT JOURNEY

FROM PROBLEM TO PRODUCTION

- CUSTOMER DISCOVERY**
Meet the simulated customer and understand the business problem.
- REQUIREMENTS**
Gather requirements and translate the business need into a technical scope.
- MVP**
Define the minimum viable solution, milestones, constraints, and priorities.
- ARCHITECTURE**
Design the complete solution before implementation.
- FULL-STACK BUILD**
Develop the frontend and backend application.
- AI + DATA**
Integrate enterprise data, RAG, AI agents, and tools.
- PRODUCTION**
Implement authentication, cloud deployment, monitoring, and production practices.
- DEMO + ITERATE**
Present the solution, gather stakeholder feedback, and improve it.

SOLUTION ARCHITECTURE

A REAL-WORLD, PRODUCTION-READY AI APPLICATION



WHAT LEARNERS APPLY

BUILD REAL CAPABILITIES FOR REAL-WORLD IMPACT

- | | |
|--|---|
| BUSINESS PROBLEM SOLVING
Translate a business problem into a practical solution. | SYSTEM DESIGN
Design the architecture before implementation. |
| FULL-STACK ENGINEERING
Build the application end to end. | AI ENGINEERING
Use RAG, AI agents, tools, and LLM capabilities. |
| DATA INTEGRATION
Work with enterprise data, APIs, and retrieval pipelines. | CLOUD + DEVOPS
Deploy and operate the solution. |

CAPSTONE OUTCOME
ONE PROJECT. END-TO-END FDE EXPERIENCE.
From customer problem to deployed AI solution.

“REAL PROBLEMS. REAL ENGINEERING. REAL IMPACT.”

THE
FDE JOURNEY

CUSTOMER

DISCOVER

DESIGN

BUILD

INTEGRATE

DEPLOY

DEMO

ITERATE

REAL
BUSINESS
IMPACT

WHAT YOU WILL BE ABLE TO BUILD

Apply FDE skills to real-world AI business use cases.

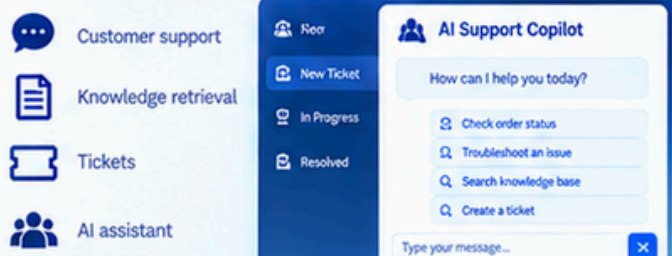
The Masterclass focuses on building practical AI applications that connect users, enterprise data, business workflows, and production systems.

SOLVE
TOGETHER
BUILD
A BRIGHTER
TOMORROW.

01

AI CUSTOMER SUPPORT COPILOT

RAG assistant integrated with ticketing workflows.



02

ENTERPRISE KNOWLEDGE ASSISTANT

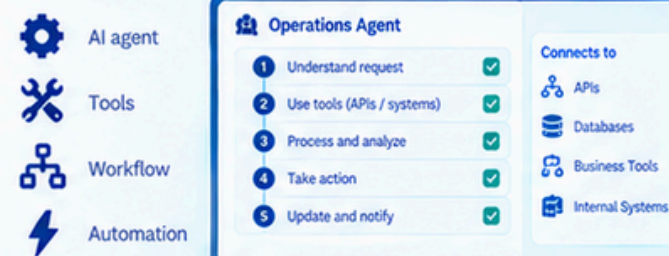
Retrieval over internal documents with source-grounded answers.



03

AI OPERATIONS AGENT

Tool-use agent automating multi-step workflows.



04

BUSINESS ANALYTICS CHAT INTERFACE

Natural-language querying and reporting over enterprise data.



05

MULTI-AGENT TASK ORCHESTRATION SYSTEM

Coordinated agents planning and executing complex multi-step tasks.



06

FULL-STACK AI APPLICATION

Cloud-hosted AI application with monitoring and observability.



FROM
IDEA TO IMPACT



BUSINESS
PROBLEM



DATA



AI



APPLICATION



CLOUD



BUSINESS
OUTCOME

REAL
SOLUTIONS.
REAL
OPPORTUNITIES.



DON'T JUST BUILD A CHATBOT.
BUILD AI SYSTEMS THAT SOLVE BUSINESS PROBLEMS.



CAPSTONE

Build and Deploy an AI Business Operations Assistant
Bring the same engineering, AI, data, cloud, and customer-delivery capabilities together in one end-to-end project.



WHERE CAN THIS MASTERCLASS TAKE YOU?

Build the skills to pursue modern AI-first engineering and customer-facing technical roles.

SKILLS
TODAY.
BIGGER
OPPORTUNITIES
TOMORROW.

SAME
SKILLS.
MORE
OPPORTUNITIES.



SKILLS BEHIND THE OUTCOMES



ENGINEERING

Full-stack development
APIs • Databases



AI

LLMs • RAG • Agents
AI applications



CLOUD

Deployment • DevOps
Monitoring



SYSTEM DESIGN

Architecture • Scalability
Reliability



CUSTOMER

Discovery • Communication
Stakeholders



BUSINESS

ROI • Prioritization
Product thinking

YOUR FDE JOURNEY



ENGINEERING FOUNDATION

Build core engineering skills



AI + CLOUD

Apply AI and deploy
real solutions



SYSTEM DESIGN

Design for scale
and reliability



CUSTOMER + BUSINESS

Solve real problems
with customers



FDE CAREER READINESS

Multiple career pathways

**ONE FDE MINDSET.
MULTIPLE CAREER PATHS.**

Develop the ability to connect technology, AI, customers,
and business outcomes across modern technical roles.

**BUILD THE SKILLS.
EXPAND THE POSSIBILITIES.** →

A BRIGHTER
TOMORROW
BUILDS ON
WHAT YOU
LEARN TODAY.



LEARN FROM INDUSTRY PRACTITIONERS

Practical guidance across data, cloud, AI, agentic AI, and enterprise delivery.

PRACTITIONERS
REAL-WORLD
PERSPECTIVE
LASTING IMPACT



FACULTY

AI & LIFE SCIENCE EXPERT

Apply AI to life sciences, including genomics, drug discovery, healthcare analytics, and regulatory compliance.



AI/ML



Life Sciences Analytics



Regulatory & Compliance



Genomics & Drug Discovery



Quality & ITQA



Digital Transformation

SCIENCE.
TECHNOLOGY.
BETTER
HEALTHCARE.
REAL IMPACT.



FACULTY

AI / ML DEVELOPER

Design and build AI applications using machine learning and generative AI.



Machine Learning



Generative AI



LLMs



AI Applications



AI Engineering

IDEAS
MODELS
APPLICATIONS.
REAL-WORLD
SOLUTIONS.



FACULTY

AGENTIC AI APPLICATION DEVELOPER

Build agentic AI systems that can reason, use tools, and execute complex workflows.



AI Agents



Agent Workflows



Tool Calling



RAG



Multi-Agent Systems

AGENTS
WORKFLOWS
TOOLS
ACTION
AT SCALE.



FACULTY

DATA ENGINEER & CLOUD EXPERT

Build modern data platforms and scalable cloud solutions for real-world business needs.



Cloud Architecture



Data Pipelines



Enterprise Data



Data Engineering



Cloud Deployment

REAL
TECHNOLOGY.
REAL
APPLICATIONS.
REAL IMPACT.

WHAT YOU GET FROM INDUSTRY MENTORS



REAL-WORLD CONTEXT

Understand how technologies are applied beyond tutorials.



PRACTICAL GUIDANCE

Learn how to approach engineering and AI delivery problems.



PRODUCTION MINDSET

Understand the difference between prototypes and production systems.



FDE PERSPECTIVE

Develop technical, customer, and business thinking together.

ABOUT GENQUANTAA

Accelerating AI That Discovers, Decides, and Delivers Impact.

BUILDING AI FOR REAL-WORLD IMPACT

GENQUANTAA is focused on turning emerging AI capabilities into practical, business-oriented solutions.

We bring together AI, engineering, data, cloud, and business thinking to solve real problems and create meaningful impact.



THE GENQUANTAA APPROACH

A practical, end-to-end approach to turning ideas into real-world impact.



GENQUANTAA ACADEMY

Bringing the same practical mindset into professional learning.

Industry-focused programs designed around practical skills, real-world projects, AI-first engineering, and production-oriented thinking.



FROM LEARNING AI TO DELIVERING AI

Develop the ability to understand problems, build solutions, deploy systems, and connect technology with real-world business needs.

PRACTICAL PEOPLE
REAL SOLUTIONS
BRIGHTER TOMORROW

WHY GENQUANTAA ACADEMY?

Learn beyond theory. Build for the real world.

LEARN
BUILD
SOLVE
DELIVER
A BRIGHTER TOMORROW

01 AI-FIRST LEARNING



Learn modern AI engineering capabilities including:

PRACTICAL
AI SKILLS
FOR REAL
APPLICATIONS.

LLMs RAG Agents Tool Use AI Applications

02 PRODUCTION MINDSET



Go beyond prototypes and understand:

BUILD
PRODUCTION-
READY
SOLUTIONS.

Deployment Reliability Monitoring Security Operations

03 END-TO-END ENGINEERING



Connect:

FROM IDEA
TO A REAL-WORLD
APPLICATION.

Frontend Backend Data AI Cloud Production

04 PRACTITIONER-LED LEARNING



Learn through practical guidance from professionals working across:

REAL-WORLD
EXPERIENCE.
PRACTICAL
PERSPECTIVE.

Data Cloud AI/ML Agentic AI Enterprise Delivery

05 CUSTOMER-CENTRIC ENGINEERING



Learn to:

SOLVE
REAL PROBLEMS
FOR
REAL USERS.

Discover Scope Design Build Demo Iterate

06 BUSINESS IMPACT



Connect technology decisions to:

TURN
TECHNOLOGY
INTO MEANINGFUL
OUTCOMES.

Workflows ROI Prioritization AI Impact Business Outcomes

**DON'T JUST LEARN AI.
LEARN HOW TO DELIVER AI.**

From customer problem to production solution.

FDE LEARNING MODEL



LEARN



PRACTICE



BUILD



DEPLOY



DELIVER

ENGINEERING • AI • CLOUD • DATA • CUSTOMERS • BUSINESS



THE COMPLETE FDE MINDSET

Technical capability +
customer understanding +
business thinking +
production delivery.

BECOME A FORWARD DEPLOYED ENGINEER

8 WEEKS TO THINK, BUILD & DELIVER LIKE AN FDE.

Learn the complete journey from customer problem to production AI.



CUSTOMER PROBLEM

Understand real business needs



DISCOVERY

Explore, define and validate



ARCHITECTURE

Design the right solution



AI + ENGINEERING

Build intelligent applications



PRODUCTION

Deploy, monitor and operate



BUSINESS IMPACT

Drive meaningful outcomes



8 WEEKS

Focused, intensive and practical



13-STAGE ROADMAP

Structured learning from fundamentals to production



INDUSTRY MENTORS

Learn from real-world practitioners



END-TO-END CAPSTONE

Build and deploy a complete AI solution

WHAT YOU WILL DEVELOP



ENGINEERING

Full-stack development and APIs



AI ENGINEERING

LLMs, RAG, agents and AI applications



CLOUD & DEVOPS

Deployment, monitoring and operations



SYSTEM DESIGN

Architecture, scalability and reliability



CUSTOMER SKILLS

Discovery, communication and stakeholder management



BUSINESS ACUMEN

Workflows, prioritization and business outcomes

FROM CUSTOMER PROBLEM TO PRODUCTION AI.

LEARN. BUILD. DEPLOY. DELIVER.



READY TO BUILD AI WHERE THE WORK HAPPENS?

JOIN THE GENQUANTAA FDE MASTERCLASS

AI
ENGINEERS
REAL SOLUTIONS
BRIGHTER TOMORROWS

A BRIGHTER
TOMORROW
WITH AI

LEARN
BUILD
DEPLOY
DELIVER
MAKE AN IMPACT

A BRIGHTER
TOMORROW
WITH AI