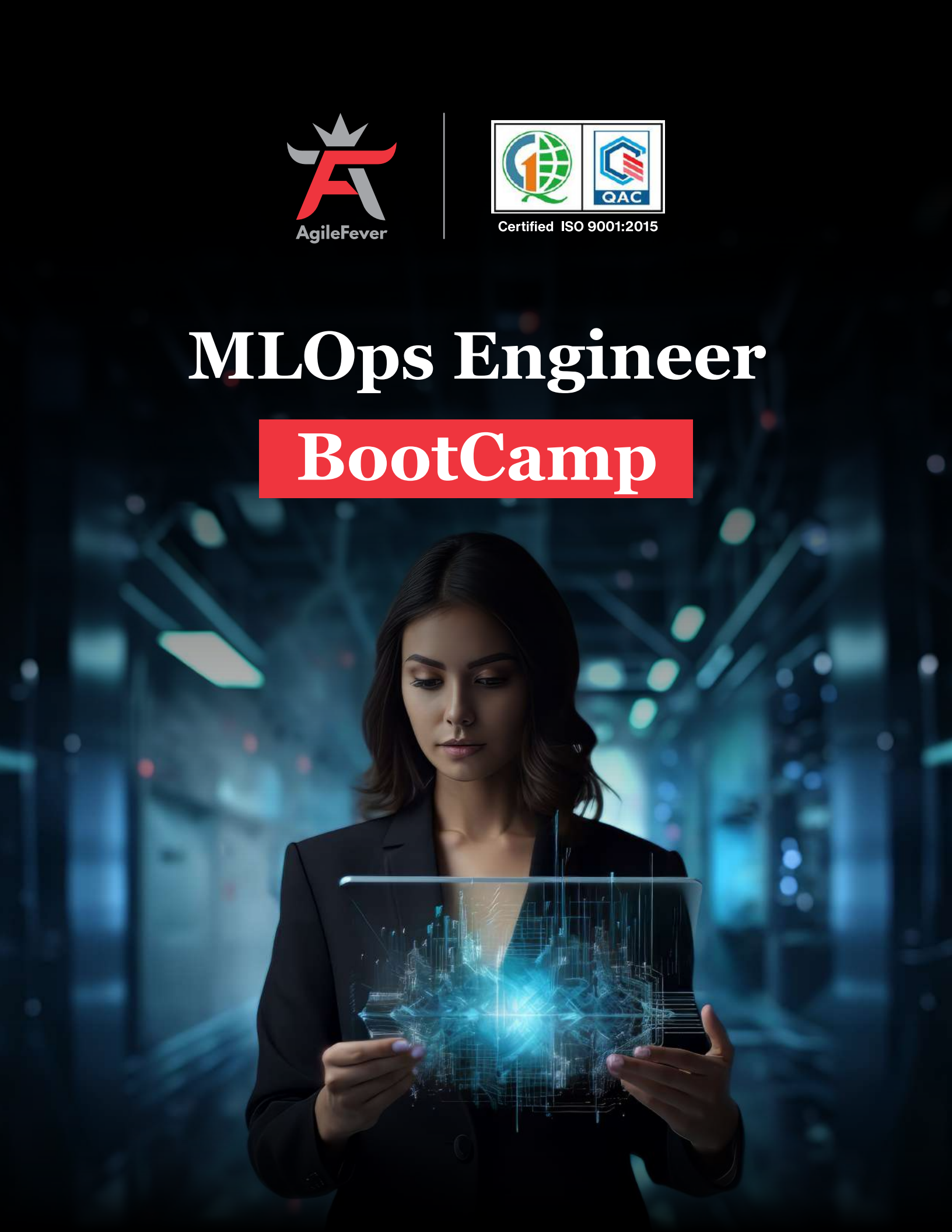
AgileFever

Certified ISO 9001:2015

MLOps Engineer

BootCamp



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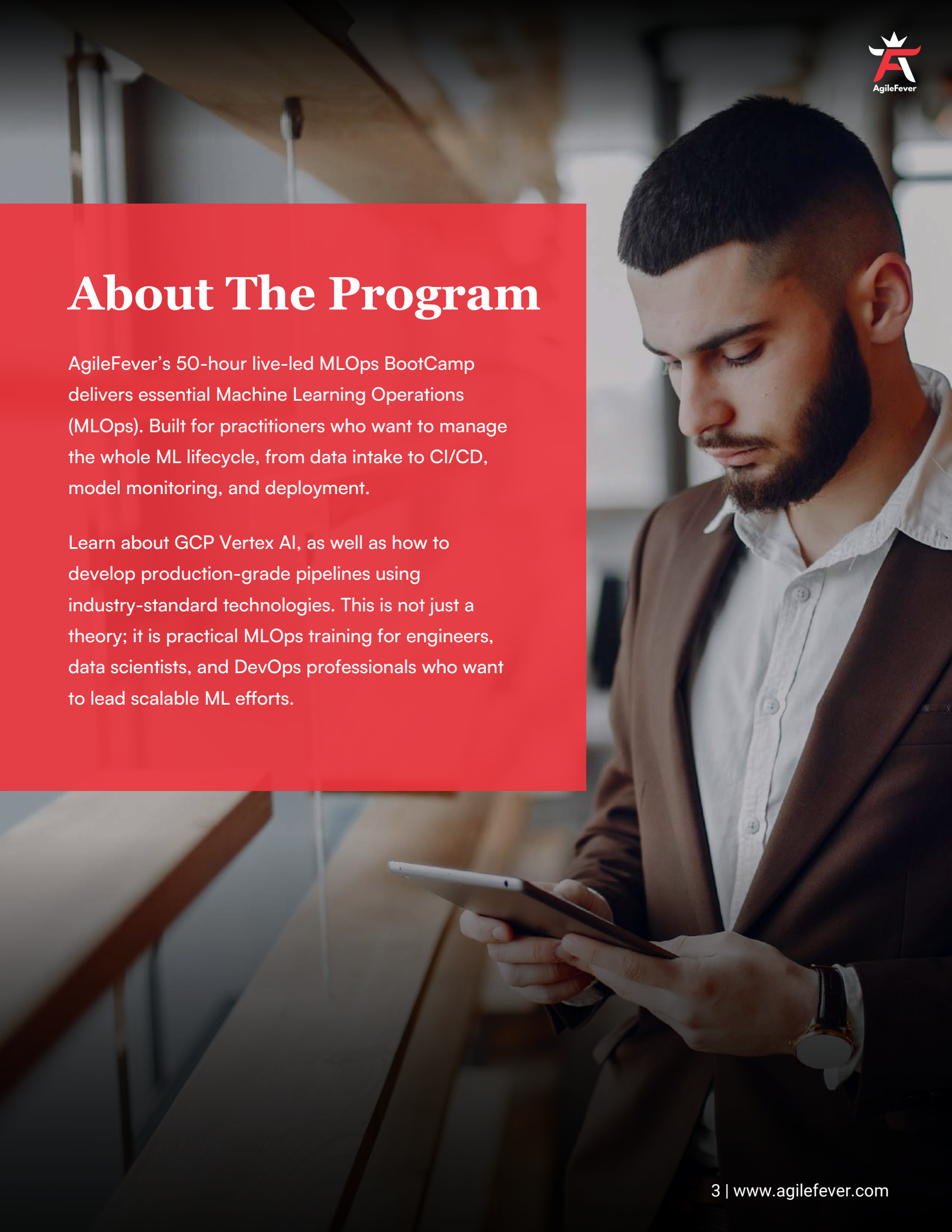


About The Program

AgileFever's 50-hour live-led MLOps BootCamp delivers essential Machine Learning Operations (MLOps). Built for practitioners who want to manage the whole ML lifecycle, from data intake to CI/CD, model monitoring, and deployment.

Learn about GCP Vertex AI, as well as how to develop production-grade pipelines using industry-standard technologies. This is not just a theory; it is practical MLOps training for engineers, data scientists, and DevOps professionals who want to lead scalable ML efforts.

Key Highlights Of The Program

- 50 hours of live, instructor-led sessions with hands-on labs
- Covers the complete MLOps lifecycle including data pipelines, CI/CD, deployment, monitoring, and governance
- Cloud-native training with GCP Vertex AI, aligned with top enterprise tooling
- End-to-end CI/CD pipelines using GitHub Actions, and MLflow for reproducibility and automation
- Feature store integration and data versioning using Feast and DVC to support production-scale ML
- Hands-on experience with containerization and orchestration using Docker and Kubernetes
- Model monitoring with Prometheus and Grafana, including drift detection, alerting, and retraining triggers
- Security-first practices with IAM, RBAC, secrets management, and infrastructure cost optimization
- Capstone project that demonstrates a fully operational ML pipeline deployed to the cloud
- Career support included: resume revamp, mock interviews, and portfolio walkthroughs to stand out in MLOps roles
- Ability to choose your capstone project from realworld use cases for tailored, goal-oriented learning.

Who Is This Program Ideal For?

This course is ideal for tech professionals aiming to work in MLOps roles.

- Data Scientists looking to learn ML Ops
- DevOps Engineers looking to move to ML operations
- Software Engineers architecting ML systems
- Cloud Engineers looking to manage ML deployments
- IT Professionals working in companies that use ML

About Agilefever

AgileFever is a globally recognized, ISO-certified EdTech leader. We specialize in delivering live, career-defining training in emerging and enterprise-ready technologies — bridging the gap between what the industry demands and what available Talent.

Our brand name captures our essence:
Agile: A reflection of our relentless focus on adaptability, speed, and evolution — the pillars of modern professional excellence.
Fever: The intense energy and passion that drives our learners, trainers, and partners to stay ahead in a fast-moving tech landscape.
Together, AgileFever represents a burning commitment to real-world, agile learning that powers future-ready careers.

We focus on three core pillars:
Certification Programs: Co-delivered with global certifying bodies like Microsoft, Scaled Agile, and Kanban University, ensuring credibility and global recognition.

Industry-Led Bootcamps: Designed in collaboration with top-tier practitioners and academic leaders, our bootcamps offer project-based learning aligned with real job roles.

Career Acceleration & Interview Prep: Including personalized coaching, mock interviews, and portfolio development to help learners land high-impact roles across industries.

Our Expertise - From Artificial Intelligence, Agentic AI, and Generative AI to Cloud, Cybersecurity, Project Management, and Agile methodologies, AgileFever offers a catalog of 200+ cutting-edge courses — all taught 100% live, supported by mentors, capstones, and real-world use cases. Whether you're a corporate team looking to upskill at scale, or a new graduate preparing for your first role, our programs are built to deliver industry-readiness from Day 1.
Our Impact - With over 25,000 professionals trained and 1,000+ enterprise teams empowered, AgileFever is not just another EdTech company — we are a strategic capability partner to some of the world's most ambitious individuals and organizations.

Authorized Training Partner

AgileFever Advantages

World-Class Faculty & Mentors

Learn from top university professors (Caltech, Michigan State, IITs, UT Dallas) and seasoned FAANG professionals.

Industry-Backed, Job-Ready Curriculum

Curriculum designed by experts from leading companies, focused on real-world applications, not just theory.

Fully Live, Instructor-Led Training

Engage in 100% live sessions with instant doubt resolution and real-time interaction—no pre-recorded content.

Hands-On Learning With Projects & Labs

Work on 10+ projects and multiple labs to build practical, job-ready skills.

Exclusive Lifetime Access

Get lifetime access to updated course content, so your skills stay relevant long after training ends.

Private Peer Learning Community

Join an exclusive network for collaboration, discussions, and professional growth.

Affordable Premium Education

Gain top-tier training and mentorship at highly competitive pricing.

Mentorship From Industry Leaders

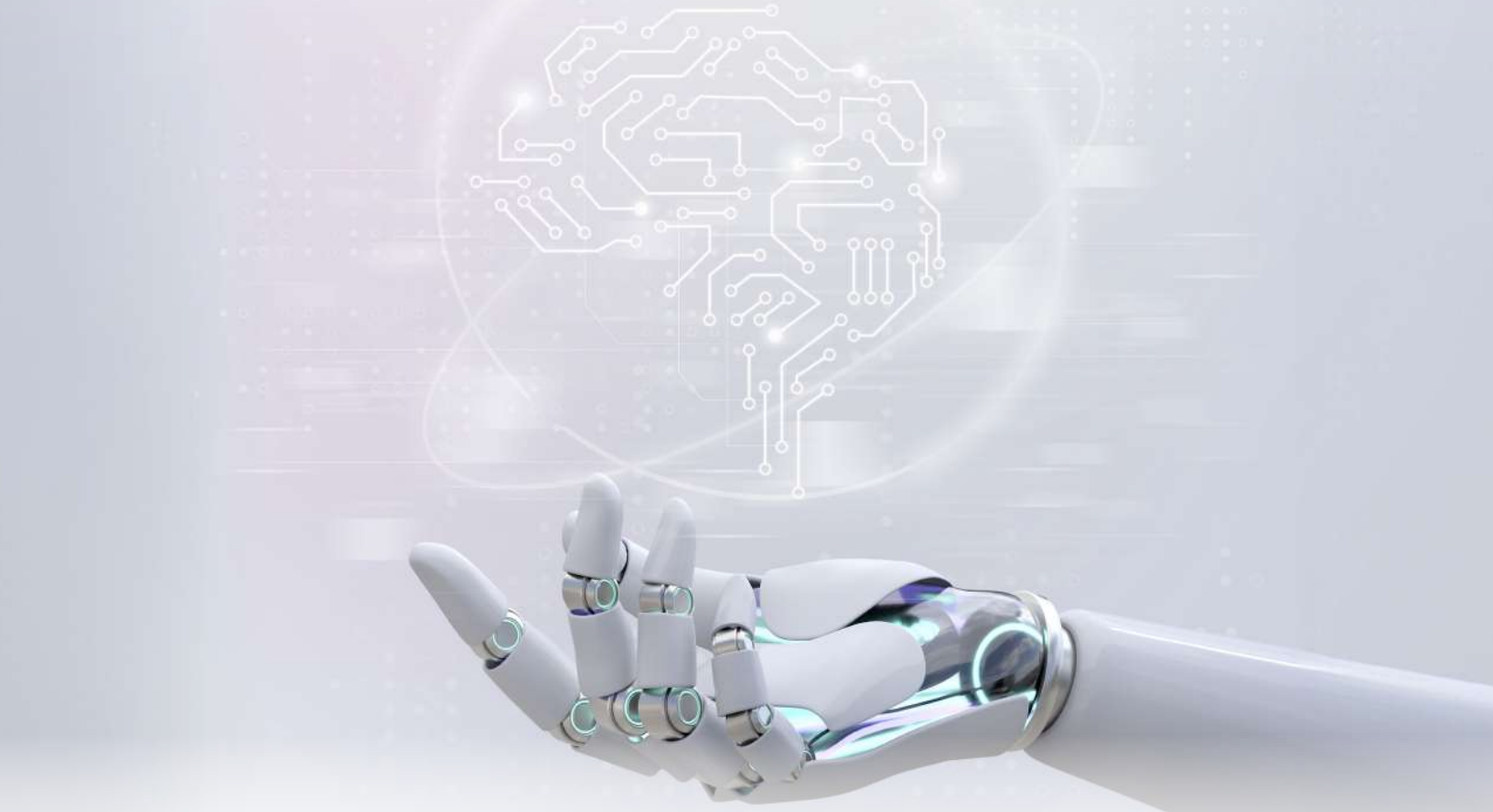
Get personalized guidance from experts at Fortune 500 companies and fast-growing startups.

Career Coaching & Soft Skills Development

- Personalized career coaching from certified professionals to align your goals with industry expectations
- Behavioral coaching to help you excel in HR and cultural fit interviews
- Multiple weekly office hours for ongoing support, doubt resolution, and expert guidance

Job Market Readiness & Visibility

- Resume refinement with direct input from top recruiters to craft a standout profile
- Mock interviews conducted by real hiring managers to build interview confidence and readiness
- LinkedIn profile optimization to boost visibility and attract top opportunities



Certificates

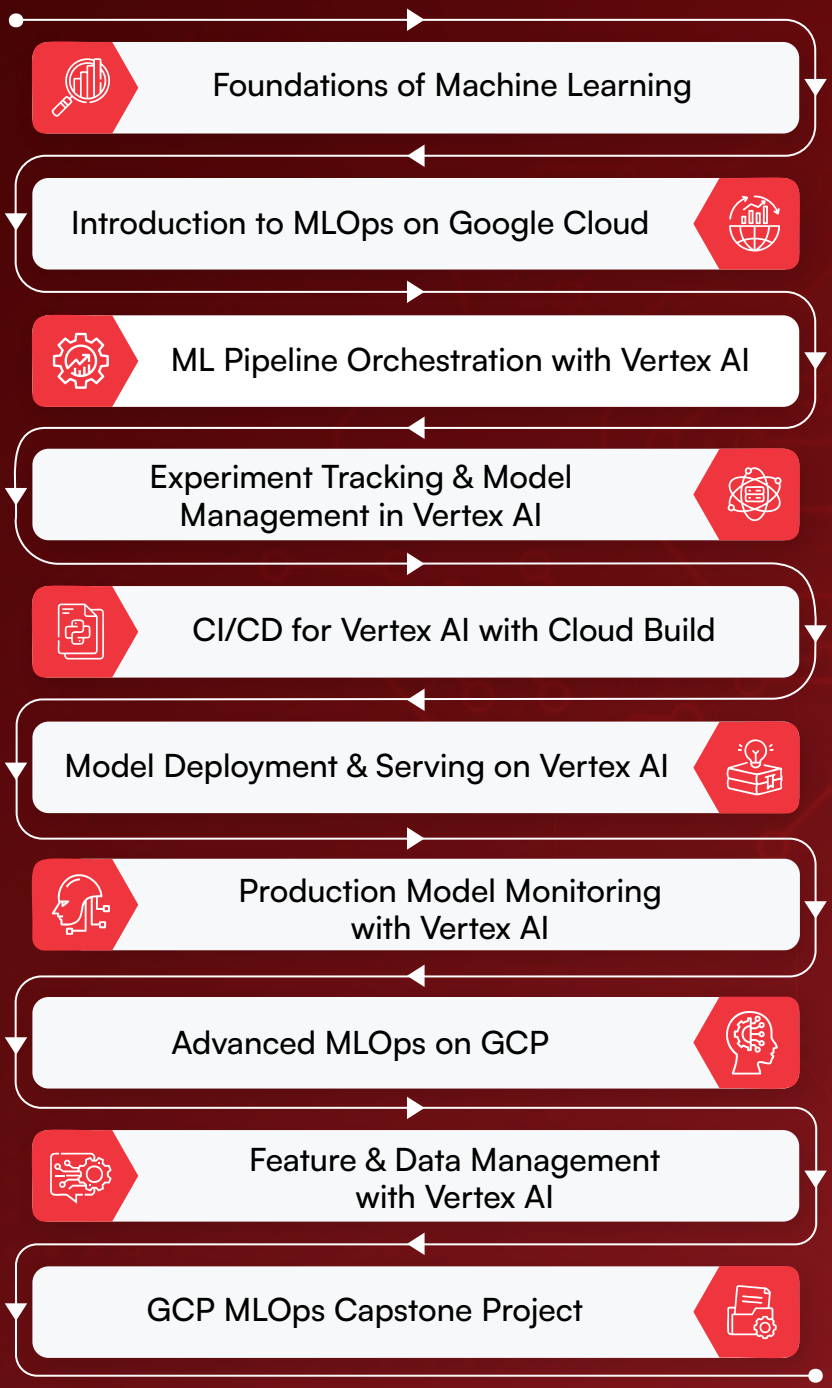
Upon successful completion of the MLOps Engineer BootCamp, you will receive a Certificate of Completion from AgileFever. Additionally, you will be awarded certificates for all applicable modules within the program, recognizing your dedication, initiative, and commitment to advancing your expertise in AI. These certificates serve as a testament to your skills and growth as an AI professional.

Program Outcomes

After completing this course, learners will be able to:

- Understand foundational machine learning concepts and build, evaluate, and improve basic models.
- Grasp the core purpose of MLOps and confidently set up essential MLOps infrastructure on Google Cloud.
- Build, execute, and manage automated, multi-step ML workflows using Vertex AI.
- Track ML experiments systematically for reproducibility and manage the complete model lifecycle using Vertex AI's native tools.
- Implement automation for MLOps using Google Cloud's CI/CD services, linking Git commits directly to model deployment.
- Deploy trained models as scalable, secure prediction services for both online and batch use cases on Vertex AI.
- Set up an integrated monitoring solution to detect model drift or degradation and trigger automated alerts.
- Apply best practices to build secure, explainable, governable, and scalable ML systems on Google Cloud.
- Centrally manage ML features and version datasets to ensure full pipeline reproducibility on GCP.
- Create a portfolio-ready, end-to-end MLOps project showcasing real-world proficiency with Vertex AI on Google Cloud.

Learning Path



Electives

- Agentic AI Bootcamp
- Gen AI Bootcamp
- AI and ML BootCamp

Program Curriculum

Module 1

Foundations of Machine Learning

- **Subtopics:**
  - What is ML? (Supervised, Unsupervised, etc.)
  - The ML Lifecycle Data Preprocessing, EDA, Cross-Validation
  - Core Evaluation Metrics (Accuracy, Precision, Recall, AUC)
- **Learning Outcomes:**
  - Understand foundational ML concepts and be able to build and evaluate basic models.
- **Hands-on/Lab:**
  - Build and evaluate simple classification and regression models using scikit-learn in a notebook.

Module 2

Introduction to MLOps on Google Cloud

Subtopics:

- DevOps vs. MLOps
- The MLOps Lifecycle Stages Intro to GCP for ML & Vertex AI Platform
- Core Components: Projects, IAM, Cloud Storage, Vertex AI Workbench

Learning Outcomes:

- Grasp the purpose of MLOps and become proficient in setting up core MLOps infrastructure on Google Cloud.

Hands-on/Lab:

- Set up a GCP project, enable Vertex AI APIs, and launch a managed notebook in Vertex AI Workbench.

Module 3

ML Pipeline Orchestration with Vertex AI

Subtopics:

- Building with the Kubeflow Pipelines (KFP) SDK
- Using pre-built Google Cloud Pipeline Components
- Orchestration with Vertex AI Pipelines
- Designing reusable & parameterized pipelines

Learning Outcome:

- Build, execute, and manage automated, multi-step ML workflows specifically on Vertex AI.

Hands-on/Lab:

- Construct a complete training pipeline using the KFP SDK and run it on Vertex AI Pipelines.

Module 4

Experiment Tracking & Model Management in Vertex AI

Subtopics:

- Hyperparameter Tuning with Vertex AI Vizier
- Versioning & Staging in the Vertex AI Model Registry
- Tracking with Vertex AI Experiments
- Integrating MLflow with Vertex AI (optional)

Learning Outcome:

- Systematically track ML experiments for reproducibility and manage the model lifecycle using Vertex AI's native tools.

Hands-on/Lab:

- Run an HPT job using Vertex AI Vizier, log results in Vertex AI Experiments, and register the best model in the Vertex AI Model Registry.

Module 5

CI/CD for Vertex AI with Cloud Build

Subtopics:

- Git with Cloud Source Repositories or GitHub
- Automating pipelines with Cloud Build triggers
- CI/CD Principles for ML
- Packaging code and dependencies for CI/CD

Learning Outcome:

- Implement robust MLOps automation using Google Cloud's native CI/CD services to link Git commits to model production.

Hands-on/Lab:

- Create a CI/CD workflow using Cloud Build that automatically triggers a Vertex AI Pipeline run when code is pushed to a repository.

Module 6

Model Deployment & Serving on Vertex AI

Subtopics:

- Deployment Strategies: Real-time vs. Batch
- Running Vertex AI Batch Prediction jobs
- Deploying to Vertex AI Endpoints
- Containerizing models with Artifact Registry

Learning Outcome:

- Deploy trained models as scalable, secure prediction services for both online and offline use cases on Vertex AI.

Hands-on/Lab:

- Deploy a model from the Vertex AI Model Registry to a live Vertex AI Endpoint. Separately, run a largescale Batch Prediction job.

Module 7

Production Model Monitoring with Vertex AI

Subtopics:

- Detecting Training-Serving Skew & Prediction Drift
- Monitoring model performance with Vertex AI Model Monitoring
- Alerting with Cloud Monitoring
- Data Validation with Great Expectations

Learning Outcome:

- Implement an integrated monitoring solution to detect model degradation and automatically trigger alerts.

Hands-on/Lab:

- Configure Vertex AI Model Monitoring for a deployed endpoint. Simulate data drift and demonstrate a triggered alert in Cloud Monitoring.

Module 8

Advanced MLOps on GCP

Subtopics:

- Security with GCP IAM & Secret Manager
- Fairness & Bias with Vertex Explainable AI
- Unit & Integration testing for pipelines
- Scaling with custom jobs on Google Kubernetes Engine (GKE)

Learning Outcome:

- Apply principles for building secure, governable, explainable, and scalable ML systems on Google Cloud.

Hands-on/Lab:

- Secure a Vertex AI Endpoint using IAM roles. Use Vertex Explainable AI to get feature attributions for a model.

Module 9

Feature & Data Management with Vertex AI

Subtopics:

- Need for a Feature Store
- Vertex AI Feature Store for online/ offline consistency
- Data Versioning with DVC & Cloud Storage

Learning Outcome:

- Manage ML features centrally and version datasets to ensure full pipeline reproducibility on GCP.

Hands-on/Lab:

- Use DVC with Google Cloud Storage to version a dataset. Set up and use the Vertex AI Feature Store for training and serving.

Module 10

GCP MLOps Capstone Project

Subtopics:

- Cloud Storage, DVC, Vertex AI Pipelines, Vertex AI Experiments & Model Registry, Cloud Build, Vertex AI Endpoints, Vertex AI Model Monitoring
- End-to-end project using the GCP stack:

Learning Outcome:

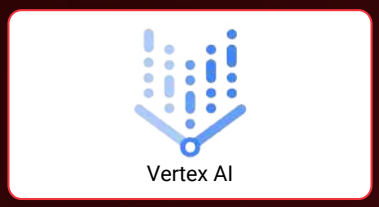
- Apply all learned concepts to create a portfolio-ready project demonstrating end-to-end MLOps proficiency on GCP and Vertex AI.

Hands-on/Lab:

- Build a complete, automated MLOps system on GCP for a real-world problem like fraud detection or product recommendation.

Tools Covered

Gain hands-on experience with leading tools across the MLOps ecosystem:



Projects

Hands-on Lab / Project

- Build and evaluate simple classification and regression models using scikit-learn in a notebook.
- Set up a GCP project, enable Vertex AI APIs, and launch a managed notebook in Vertex AI Workbench.
- Construct a complete training pipeline using the KFP SDK and run it on Vertex AI Pipelines.
- Run an HPT job using Vertex AI Vizier, log results in Vertex AI Experiments, and register the best model in the Vertex AI Model Registry.
- Create a CI/CD workflow using Cloud Build that automatically triggers a Vertex AI
- Pipeline run when code is pushed to a repository.
- Deploy a model from the Vertex AI Model Registry to a live Vertex AI Endpoint.
- Separately, run a large-scale Batch Prediction job.
- Configure Vertex AI Model Monitoring for a deployed endpoint. Simulate data drift and demonstrate a triggered alert in Cloud Monitoring.
- Secure a Vertex AI Endpoint using IAM roles. Use Vertex Explainable AI to get feature attributions for a model.
- Use DVC with Google Cloud Storage to version a dataset. Set up and use the Vertex AI Feature Store for training and serving.
- Build a complete, automated MLOps system on GCP for a real-world problem like fraud detection or product recommendation.

Certification Process

Candidates can register and complete to this program in 4 simple steps:

STEP 1

Register for the Program

Enroll in the MLOps Engineer BootCamp

STEP 2

Attend and Complete the Training

Attend all live sessions and complete the course curriculum

STEP 3

Complete the Capstone Project

Apply your learning in a hands-on project to demonstrate your practical skills

STEP 4

Receive Course Completion Certificate

Upon successful completion, receive an industry-recognized certificate from AgileFever

Pre-requisites:

While this course is designed to be accessible, learners will get the most value if they have:

- Technical Background: Basic understanding of DevOps concepts (CI/CD, version control, containers)
- Familiarity with at least one programming language (preferably Python)
- Cloud & Tools Exposure (Preferred but not mandatory)
- Experience with cloud platforms (Azure or GCP)
- Knowledge of using Git and command-line interface

Exam Details

No formal exam is required.

AgileFever

United States

Agilefever Americas, Inc.

13107, Risen Star Road, Frisco, Texas,

75035 United States

Email us at: training@agilefever.com

Call us at: +1 (516) 655-6255

Australia

AgileFever LLC

Unit 12/19-21 Veron, St. Wentworthville

NSW 2145, Australia

Email us at: training@agilefever.com

INDIA

AgileFever India

Hyderabad — 500001 Telangana India

Email us at: training@agilefever.com

www.agilefever.com