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"This is the best machine learning course I've done. Worth every cent."

— **Jose Reyes**, AI/ML at Cevo Australia

Learn to Build Machine Learning Systems That Don't Suck

A live, interactive program that'll show you how to design, build, and deploy production-ready systems from scratch – without the fluff.

This program is for builders looking to solve real-world problems using AI/ML.

Most Machine Learning courses are boring, too academic, and never talk about how to ship actual products.

This program is different. This is a practical, no-nonsense, hands-on program that will teach you the skills you need for building production systems in weeks, not months.

You'll walk away from this program having designed, built, and deployed an end-to-end Machine Learning system, plus a proven playbook for selling, planning, and delivering world-class work backed by 30 years of real-world experience.

This is the class I wish I had taken when I started.

~~$500~~ $300

Next cohort: May 5 - 22, 2025

Enroll today and you'll get **free**, **lifetime** access to every future cohort. You'll never pay another cent, ever.

Enroll now

Already a member? Sign in

WITH FORMER STUDENTS FROM



What Will You Learn?

This is a live, hands-on program that focuses on real-world Machine Learning.

This program is a world apart from any of those courses you've taken before:

- ✓ You'll join **20+ hours** of live, interactive sessions where you'll learn how to build **production-ready** Machine Learning systems.
- ✓ You'll discover **best practices** for **building**, **evaluating**, **running**, **monitoring**, and **maintaining** systems in production.
- ✓ You'll get **hands-on** access and a complete **walkthrough** of an **end-to-end** Machine Learning system built entirely from scratch.
- ✓ You'll learn how to **build systems once** and **deploy them anywhere** using **state-of-the-art** techniques and **open-source** tools.

- ✓ You'll enjoy **lifetime** access to every future cohort and a **private community** where you can collaborate with thousands of students like you.

This program will completely change the way you think about Machine Learning. You'll ditch the typical classroom fluff in favor of practical strategies that actually work.

Day 1 - How To Start (Almost) Any Project

In this session, you'll learn how to **pitch**, **sell**, **structure**, and **launch** a new Machine Learning project. You'll find out how to **frame** complex **problems** in ways that set you up for **successful** solutions. Then, you'll cover how to run a **discovery phase**, address **selection bias**, manage **data collection** and **labeling**, and build an initial **prototype**.

Day 2 - How To Build A Model (That Works)

In this session, you'll explore **data cleaning** and **feature engineering**, and learn how to **preprocess** data using **vectorization**, **normalization**, and **imputation**. Next, you'll cover strategies for selecting the **best model** for your problem and discuss how to iteratively build an end-to-end **training pipeline**. Finally, you'll walk through **distributed training** so you can **scale** your models with **data** and **model parallelism**.

Day 3 - How To Ensure Models Aren't Lying to Us

In this session, you'll explore different **evaluation strategies**, such as **cross-validation**, **LLM-as-a-judge**, **backtesting**, **invariance**, and **behavioral** testing. Next, you'll see how to **frame** evaluation **metrics** in the context of **business goals**, ensuring your models work in real-world scenarios. Finally, you'll learn to prevent **data leakages**, perform **error analysis**, and handle **imbalanced data**.

Day 4 - How To Serve Model Predictions (In A Clever Way)

In this session, you'll explore how to **version** and **deploy** models while dealing with key **trade-offs** and operational considerations. Next, you'll examine different strategies for **serving predictions**, including **human-in-the-loop** and **cost-sensitive** workflows. Finally, you'll learn about **pruning**, **quantization**, **knowledge distillation**, and Low-Rank Adaptation (**LoRA**) to compress and optimize models for real-world applications.

Day 5 - How To Monitor A Model (Drift Is Awful)

In this session, you'll learn how to handle **edge cases** and **outliers**, address **feedback loops**, and detect and understand distribution shifts like **covariate shift**, **label shift**, and **concept drift**. Next, you'll see how to use **adversarial validation** and explore practical strategies for **monitoring** models in production. Finally, you'll explore different techniques to build **resilient** models that **adapt** to distribution shifts.

Day 6 - How To Build Continual Learning Systems

In this session, you'll learn how to dynamically extend the capabilities of your model using the **Model Context Protocol (MCP)** and how to automate the entire process of **building**, **deploying**, and **maintaining** a model in production to create systems that **learn** and **improve** over time. You'll explore **incremental training** techniques, how to avoid **catastrophic forgetting** and different methods for **retraining** your models. Finally, you'll see how to test models in production using **A/B testing**, **canary releases**, **shadow deployments**, and **interleaving experiments**.

Code walkthroughs

You'll get access to an end-to-end, production-ready template system for training, evaluating, deploying, and monitoring machine learning models.

The codebase comes with extensive documentation to help you understand how the code works and how you could change it to accommodate your needs.

Office Hours

Every week, we'll meet during office hours to answer any open questions, discuss relevant topics, and help you with any challenges you may be facing. This is also a great opportunity to connect with other students in your cohort, share insights, and talk about anything you are building or are passionate about.

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"I have learned a ton from Santiago in his class and it was actually what helped inspire me and get into the MLOps work that I'm doing now. Truly one of the most helpful online courses for doing real, full-scale machine learning."

Brian H. Hough
Software Engineer

Who Is This Program For?

This is hands-on program for people willing to put in the work to build skills with real-world impact.

This program is for **software engineers**, **data scientists**, **data engineers**, **data analysts**, **machine learning engineers**, **technical managers**, and anyone who wants to use Machine Learning and Artificial Intelligence to solve real-world problems.

Here are the prerequisites to succeed in the program:

- ✓ You are not afraid of writing code. We'll use Python, but you'll be fine if you have experience with any other language.

- ✓ You are familiar with basic machine learning terminology, like model training, evaluation metrics, and model inference. You don't have to be an expert, but this won't be an introductory class.
- ✓ You have a basic understanding of cloud services and how to build and deploy a simple API. Familiarity with Docker and containerization is not required but a helpful skill to have.
- ✓ You are ready to put in the work and commit the time necessary to succeed.

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"This is an awesome course! This is my second round and I continue learning. I recommend it with complete confidence."

Juan Olano
Machine Learning Engineer

Upcoming Cohorts

Each iteration of the cohort consists of six live sessions plus office hours over three weeks.

Live sessions take place every Monday and Thursday. Office hours take place on Wednesdays. Every session is recorded. You can attend live or watch the recorded version later.

Here are the upcoming cohorts:

- ✓ Cohort 18: **May 5 - May 22, 2025.** 2:00 PM EDT
- ✓ Cohort 19: **August 4 - August 21, 2025.** 10:00 AM EDT
- ✓ Cohort 20: **November 3 - November 20, 2025.** 2:00 PM EST

Do not wait for a specific cohort to join the program. You have lifetime access, so you can join any time to lock in the current price.

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"This is one of the best classes I've ever purchased over the internet. Santiago is a terrific teacher. The ability he has to share knowledge is fantastic. I recommend this course. Worth 10x what he's charging."

Sal DiStefano

Frequently Asked Questions

If you can't find the answer to your question, please reach out and I'll be happy to help.

How long will it take to complete the program?

Set aside a minimum of 4 hours every week during the three weeks of the program to attend the live sessions or watch the recordings. You'll need an additional 2 - 4 hours if you plan to go through the codebase.

What happens if I can't attend a live session?

Every live session is recorded. If you can't attend a live session, you can catch up asynchronously later using the recording.

I'm a complete beginner. Will this program be helpful for me?

This program is not an introduction to machine learning.

While we'll discuss many fundamental ideas behind machine learning, beginners will find the sessions go much faster than what's optimal for them.

What does "lifetime access" mean?

You only pay once to join the program and get immediate access to every past, present, and future cohort.

Every new iteration of the program is better than the ones before. Many students take classes once and then join a later cohort to benefit from the updates.

The lifetime access removes any pressure from having to complete the program when life gets in the way.

Hey! I'm Santiago.

I'm the instructor of the program.

I'm a machine learning engineer with three decades of experience building and scaling enterprise software and machine learning systems.

From 2009 to 2023, I had the privilege of building systems for companies like Disney, Boston Dynamics, IBM, Dell, G4S, Anheuser-Busch, HP, and NextEra Energy, among others. Across these projects, I learned what it takes to build reliable and scalable software that works.

I started this program in March 2023, and since then, thousands of students have successfully graduated.

I can't wait to see you in class!