

AI-POWERED FEATURE

# Smart Learning Intent Detection

Helping learners find tutorials, not Shorts



# The Problem

Learners search for tutorials but get **flooded with Shorts** that can't teach complex topics in 60 seconds.

**100%**

of learners see Shorts  
in tutorial searches

**8/10**

frustration level  
(highest recorded)

**33%**

abandon YouTube  
for Google

*Platform abandonment = lost users, lost ad revenue, lost competitive position*

# The Voice of the Learner



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LEARNING GOALS

Python, Excel, Data Analysis

FRUSTRATION

8/10

When I search for 'Python for beginners', the first few results are Shorts. **They're too short to explain anything properly.**

Sometimes I just leave YouTube and search on Google instead.

I have to scroll a lot to find a **30-40 minute tutorial** that actually teaches something.

# Why AI is the Right Solution

## TODAY (MANUAL)

Users must manually filter

## WITH AI (AUTOMATIC)

AI detects intent & optimizes

### WHY AI IS THE RIGHT FIT

#### Pattern Recognition

NLP can identify learning signals in queries:  
"tutorial", "how to", "for beginners", "step by step"

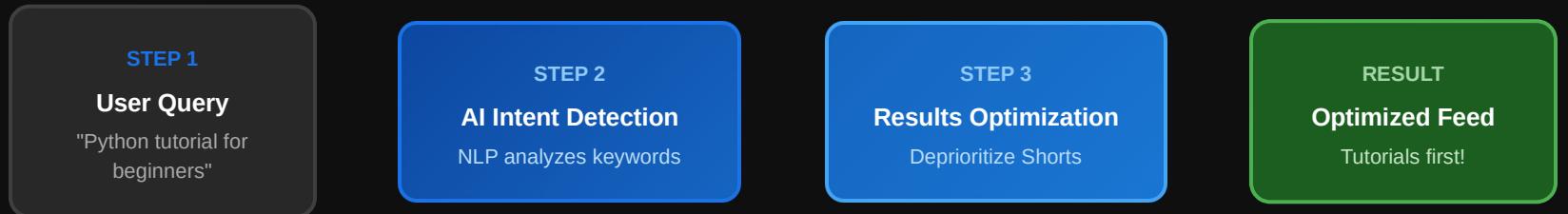
#### Zero User Effort

Works automatically without requiring users to learn new features or change behavior

#### Scales Infinitely

Applies to billions of searches instantly, learns from user feedback over time

# How the AI Works



## AI DETECTION SIGNALS

### CONFIDENCE THRESHOLD

**85%**

Only trigger when intent is clear

### PROCESSING TIME

**<50ms**

No perceptible delay for users

### USER OVERRIDE

**Always**

"Show Shorts" link available

# The User Experience

BEFORE

A dark-themed screenshot of a video search interface. At the top is a search bar with a magnifying glass icon and the text "Python for beginners tutorial". Below the search bar are four video thumbnail cards. The first card is red and titled "Python in 60 Seconds! 🔥" with the subtitle "0:58 • 1.2M views". The second card is red and titled "Learn Python FAST! #coding" with the subtitle "0:45 • 856K views". The third card is red and titled "Python Tips You Need! 🐍" with the subtitle "0:32 • 2.1M views". The fourth card is grey and titled "Python Tutorial for Beginners" by "Programming with Mosh". At the bottom of the screen, there is a red footer bar with white text that reads "I scroll to find tutorials I".

AFTER (WITH AI)

A dark-themed screenshot of the same video search interface, but with a blue border around the main content area, indicating it's after AI integration. At the top is a search bar with a magnifying glass icon and the text "Python for beginners tutorial". Below the search bar is a blue header bar with a robot icon and the text "Learning intent detected • Showing tutorials first". The video thumbnail cards are now different. The first card is blue and titled "Python Tutorial for Beginners ★" by "Programming with Mosh" with the subtitle "8.5M views". The second card is grey and titled "Python Full Course for Beginners" by "freeCodeCamp" with the subtitle "45M views". The third card is grey and titled "Learn Python - Full Course" by "Tech With Tim" with the subtitle "2.1M views". At the bottom right of the screen, there is a blue footer bar with white text that reads "Show Shorts →".

# Prototype Demo

**1** User searches

🔍 How to learn Python for data science

Recent searches:  
Excel tutorial for beginners

**2** AI analyzes

🤖 Detected: Learning Intent  
Confidence: 94%

Keywords detected:

**3** Optimized results

Python for Data Science  
★ Top rated tutorial

Complete Python Course  
freeCodeCamp

## Key Prototype Features

### Transparent AI

Shows detection reason & confidence

### Instant Results

No loading delay, seamless UX

### User Control

"Show Shorts" always available

### Quality Signals

Duration & ratings highlighted

🔗 Interactive prototype available in HTML deliverable

# Success Metrics

## ★ NORTH STAR METRIC

### Tutorial Search Abandonment Rate

% of educational searches where user exits within 30 seconds without clicking

Target

**-30%**

in 6 months

#### ADOPTION

##### AI Detection Trigger Rate

**>40%** of edu searches

How often AI detects learning intent

#### EFFICIENCY

##### Time-to-First-Click

**<30s** from ~45s today

Faster path to relevant content

#### QUALITY

##### Tutorial Video CTR

**>6%** from ~4% today

More clicks on 20+ min videos



#### GUARDRAIL METRICS (Must Not Regress)

Shorts total watch time (platform-wide)

Overall search engagement rate

AI detection accuracy >85%

# Risks and Mitigations

MEDIUM

**False Positives - AI triggers on non-learning queries**

**MITIGATION**

85% confidence threshold, Show Shorts escape hatch

HIGH

**Creator Backlash - Shorts creators see reduced visibility**

**MITIGATION**

Only affects learning queries (15% of searches)

LOW

**Users Dont Notice - Feature works but goes unappreciated**

**MITIGATION**

Subtle Learning mode indicator on hover

MEDIUM

**Bias in AI Model - Certain topics or languages underserved**

**MITIGATION**

Multilingual training, regional A/B tests

# The Bottom Line

## THE PROBLEM

Learners leave YouTube because  
Shorts dominate tutorial searches

**33%**

abandon to Google

## THE AI SOLUTION

Auto-detect learning intent and  
prioritize tutorials over Shorts

**Zero friction**

works automatically

## THE IMPACT

Reduce abandonment, increase  
satisfaction, protect competitive  
position

**-30%**

abandonment in 6 months

AI removes friction without requiring users to change behavior. **The best UX is no UX.**

