

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

Over/Under Goals Probability Calculator MCP

Turn scoreline matrices into precise goal line probabilities.

Over/Under Goals Probability Calculator MCP lets your AI client process scoreline matrices to determine the likelihood of specific goal totals. It handles the math for Over, Under, and Push scenarios across any goal line you set. You provide the distribution, and your agent calculates the exact probabilities for match outcomes.

A+ Quality Score 100/100

football

soccer

betting

math

analytics



The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

Over/Under Goals Probability Calculator MCP

4 tools available

Cloud-hosted on Vinkius

This MCP is built for football analysts who need to turn raw scoreline distributions into actionable goal line data. Instead of manually summing probabilities, you feed your scoreline matrix to your AI client and let it do the heavy lifting. You can test any goal line, whether it is a standard 2.5 or a custom threshold.

Your agent can pull statistical summaries to find expected totals or filter specific outcomes to see how they impact the overall distribution. It also acts as a mathematical safety net. If your input matrix is broken or the probabilities don't sum to one, the MCP catches the error before you rely on flawed data. It is a specialized math engine for anyone modeling soccer match outcomes.

Core Capabilities

01 — Goal Line Probability

Your agent calculates Over, Under, and Push odds for any specific goal threshold.

02 — Statistical Summaries

The MCP generates expected goal values and most likely outcomes from your data.

03 — Data Validation

Your AI client checks that your input matrices are mathematically sound before running calculations.

04 — Outcome Filtering

The tool isolates specific goal totals from a larger distribution of scorelines.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/overunder-goals-probability-calculator — connect your AI agent in three steps.

- 01 Connect your preferred MCP-compatible client to Vinkius.
- 02 Provide a scoreline matrix containing home/away goals and their probabilities.
- 03 Ask your AI client to run a specific tool like `calculate_over_under_probabilities`.
- 04 Receive the calculated probabilities or statistical summaries immediately.

You connect the MCP to your client and provide the data for processing.

Built For

This MCP is designed for professionals working with soccer match modeling and statistical forecasting.

Football Analysts

They hand off scoreline matrices to the AI to quickly derive goal line probabilities.

Sports Bettors

They use the tool to test the mathematical validity of their own goal distributions.

Data Scientists

They use it to validate and summarize soccer outcome models.

What Changes When You Connect

- 01 Automates the math required to convert scoreline matrices into goal line probabilities.
- 02 Prevents errors by validating that probability distributions sum to exactly one.

- 03

Reduces manual calculation time for custom goal thresholds.
- 04

Provides instant statistical summaries of match outcome distributions.

Real-World Applications

Testing Betting Lines

Compare your predicted scoreline distribution against a specific 2.5 goal line to find the probability of the Over hitting.

Expected Value Analysis

Use the summary tool to find the expected total goals for a projected match outcome.

Model Validation

Run a matrix through the integrity check to ensure your model's probabilities are mathematically consistent.

Outcome Isolation

Filter a large distribution to see only the specific scorelines that result in exactly two goals.

Patterns to Avoid

Ignoring mathematical consistency

❌ AVOID

You upload a scoreline matrix where the probabilities add up to 0.95 and immediately try to calculate odds.

✓ INSTEAD

Run ``validate_matrix_integrity`` first to ensure your distribution is mathematically sound before you trust any results.

Manual probability summation

❌ AVOID

You try to manually add up every scoreline that results in over 2.5 goals to find the total probability.

✓ INSTEAD

Let the MCP do the work by using ``calculate_over_under_probabilities`` to get exact odds for any threshold.

Broad distribution scanning

❌ AVOID

You look through a massive list of possible scorelines to find which ones result in exactly two goals.

✓ INSTEAD

Use `'filter_scorelines_by_total'` to isolate only the specific outcomes you need to see.

The Right Fit

Connect this MCP if you build soccer models and need to convert scoreline matrices into goal line odds. Do not use it if you only track simple win/loss/draw stats without a full scoreline distribution. The decision depends on whether you have a matrix that needs mathematical validation or conversion.



4 Tools for Goal Line and Scoreline Analysis

These tools handle the heavy math of converting scoreline matrices into specific goal line probabilities and statistical summaries.

#	TOOL	DESCRIPTION
01	calculate_over_under_probabilities	This tool calculates the exact probability of a match landing over, under, or pushing a specific goal line. It processes your provided scoreline matrix against your chosen threshold.
02	filter_scorelines_by_total	Use this to isolate specific outcomes from your distribution. It returns only the scorelines that result in a specific total number of goals.
03	get_distribution_summary	This tool provides a statistical overview of your goal distribution. It identifies key metrics like expected total goals and the most likely goal counts.
04	validate_matrix_integrity	This tool checks your scoreline matrix for mathematical errors. It ensures your probability distributions are valid and sum to one.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

- U** Calculate the over/under probabilities for a 2.5 goal line using this matrix: [{"homeGoals": 0, "awayGoals": 0, "probability": 0.1}, {"homeGoals": 1, "awayGoals": 0, "probability": 0.2}, {"homeGoals": 0, "awayGoals": 1, "probability": 0.2}, {"homeGoals": 1, "awayGoals": 1, "probability": 0.5}]



```
{"overProbability": 0.5, "underProbability": 0.5, "pushProbability": 0.0}
```

- U** What is the expected total goals for this distribution: [{"homeGoals": 1, "awayGoals": 0, "probability": 0.5}, {"homeGoals": 0, "awayGoals": 1, "probability": 0.5}]



```
{"expectedTotalGoals": 1.0, "mostLikelyTotalGoals": 1, "probabilityOfZeroGoals": 0.0}
```

- U** Check if this matrix is valid: [{"homeGoals": 1, "awayGoals": 0, "probability": 0.8}]



```
{"isValid": false, "reason": "Probabilities sum to 0.8 instead of 1.0"}
```

Frequently Asked Questions

01 What is a scoreline matrix?

It is a distribution of possible match outcomes, where each entry includes the home goals, away goals, and the probability of that specific score occurring.

02 Can I use this for leagues other than soccer?

The tools are specifically designed for football (soccer) total-goal calculations based on scoreline matrices.

03 How do I know if my probability data is correct?

You can use the `validate_matrix_integrity` tool to check if your probabilities sum to one and are mathematically valid.

04 What clients can I use with this MCP?

You can use any MCP-compatible client, including Claude, Cursor, Windsurf, and VS Code.

05 Does this MCP handle push scenarios?

Yes, the `calculate_over_under_probabilities` tool provides the probability for Over, Under, and Push scenarios.

06 What is a 'push' in goal probability?

A 'push' occurs when the total goals scored exactly match the integer goal line. For half-integer lines like 2.5, a push is impossible.

07 How do I format the scoreline matrix?

The matrix should be a JSON array of objects, where each object contains `homeGoals`, `awayGoals`, and `probability` (e.g., `[{"homeGoals": 1, "awayGoals": 0, "probability": 0.4}]`).

08 Can I use this with Claude Desktop?

Yes, this server can be connected to Claude Desktop, Cursor, VS Code, Windsurf, and any other MCP-compatible client via Vinkius Edge.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

`https://edge.vinkius.com/[TOKEN]/mcp`

CLIENT	WHERE TO CONFIGURE
 Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
 VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"overunder-goals-probability-calculator": { "url": "..." }</code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
 Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

-  Ask ChatGPT 
-  Ask Claude 
-  Ask Perplexity 
-  Ask Gemini 
-  Ask Grok 

READY TO CONNECT

Over/Under Goals Probability Calculator is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and
start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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Platform	Vinkius Cloud for AI Agents
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