

Authoring IP Geofeeds using AI tools and MCP

Sid Mathur - IP data aggregation specialist @ Fastah Inc.

Lisa wants Netflix

NETFLIX | Help Center

[← Back to Help Home](#)

Netflix thinks I'm in a different country

If TV shows and movies aren't available in your language, or if you're missing titles that other people in your area can see, Netflix may think you are in a different country than where you are currently located. If you use a VPN or proxy, try turning it off.

NOTE: If you signed up for Netflix in a European Union (EU) member country and are watching in a different EU member country, learn more about [using Netflix outside of your home](#).

If you still have trouble, follow these steps:

- ▶ Check if a VPN is turned on
- ▶ Reset your network settings
- ▶ Contact your ISP

Was this article helpful? [Yes](#) [No](#)

Before you contact your ISP

Your ISP will need some information about your network when you contact them:

1. Using a computer or mobile device on the same network as the device with the issue, open a web browser.
2. Go to fast.com. Netflix will start a connection test.
3. When the test stops, click **Show more info**.
4. Next to **Client**, note the country, and your IP address.

NOTE: Your IP address is the group of numbers and/or letters that have a dot (.) or colon (:) in between them.

When you contact your ISP

1. Tell them about the issue you're having, and the troubleshooting steps you've tried so far.
2. Share the country and IP address you collected earlier, and have them confirm that they match the location and IP address assigned to your home.
 - If the information **does match**, the ISP will need to work with Netflix directly to fix the problem. Ask them to [contact our customer service team](#).
 - If the information **doesn't match**, ask your ISP to confirm your connection uses their DNS server.
 - If it **does** use their DNS server, they'll need to work with Netflix directly to fix the problem. Ask them to [contact our customer service team](#).
 - If it **doesn't** use their DNS server, ask them for help switching to their DNS server, and then restart your Netflix app and try again.

“Contact your ISP with IP and DNS...”



Do you manage a public IP?

- Manage its IP reputation
- Manage its “geolocation reputation”

A close-up shot of Yoda from Star Wars, looking slightly to the right with a serious expression. He is holding a small, brown, textured object in his hands. The background is a dark, rocky cave with some green moss or vines.

Do. Or do not. There is no try.

Intro to self-published IP geolocation feeds

Advertising approximation geolocation using RFC8805 & friends

The Why of IP-based geolocation

- **Regulatory**, Sovereignty, Government
 - Which country : banking and financial transaction security
 - Which country : our data within own borders
 - Which state : compliance with gambling laws
- **Consumers** don't like content mis-served or denied
 - "I am being shown the wrong weather"
 - "I am not allowed to access my movie subscription"
 - "If I live in Bombay – sell me a Mumbai Indians T-shirt!"

The How – Author a simple CSV

RFC 8805 : **Describes** IP geolocation mapping semantics

150.228.133.0/24 , **IN, IN-MH , Mumbai,** *# Most specific geo – a city*

2406:2d40:2800::/40, **IN, IN-MH , ,** *# Less specific geo – a state*

2406:2d40:ab00::/40, **SG , , ,** *# An entire country*

14.1.68.0/24 , , , , *# DO NOT GEOLOCATE*

The How – Distributing your CSV

- RFC 9632: **Distributing** feed URLs to a broad audience
 - How to **publish** the URL to a CSV in APNIC or NIR records
 - How to cryptographically **attest** a feed (RPKI-assisted)
 - Enables **discovery** via WHOIS/RDAP by IP data aggregators
- RFC 9877 co-authored by APNIC + ARIN; **RDAP-only**

Best practices

Embracing geolocation for your IP address ranges

Best practices for Authoring

- **Cadence**
- **Workflow**
- **Geolocation semantics**

Best practices for Authoring

- What's a good **cadence**?
 - Small ISPs – once a month
 - Large ISPs and mobile carriers – once a week
 - Public clouds, large CDNs, LEO Satellite – once a day

Best practices for Authoring

- What's a good **workflow**?
 - Identify input data source (IPAM, Excel, CSV, Database)
 - Authoring & Validation of RFC 8805 CSV
 - Publishing on the public HTTPS server (free GitHub, S3 etc)
 - Tagging all RIR records (*inetnums*) with Geofeed URL

Best practices for Authoring

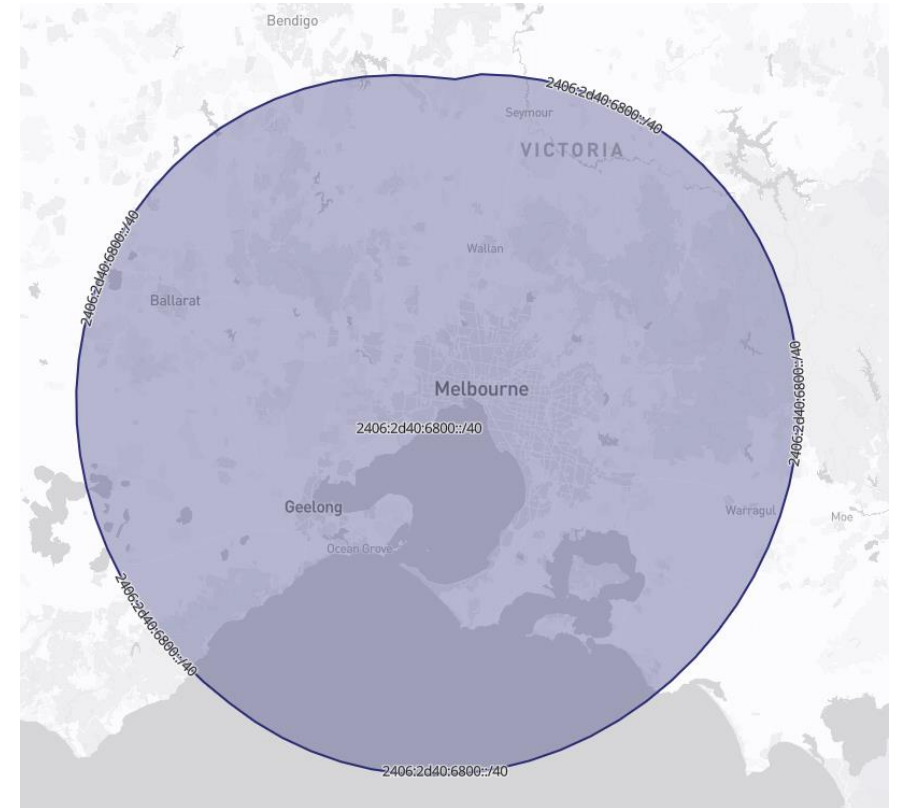
Thinking carefully about **Geolocation semantics**

- More accuracy isn't always better
 - Use **coarser geo-accuracy** for network element IPs
 - Anycast IPs can be set **do-not-geolocate**
 - User **finer geo-accuracy** for consumer IPs
 - While balancing consumer **privacy** with specificity
 - **No postal codes**, please!

Best practice – regions over points

- IP geolocation is **statistical and inexact**
- Plan in terms of **geographical regions** and NOT a single point.

*2406:2d40:6800::/40, AU, AU-VIC, <no city>,
(anywhere in the State of Victoria, Australia)*



Best practice – vary accuracy intentionally

- Fixed-internet ISPs – OK to specify cities and towns
 - 153.66.155.0/24, **AU, AU-VIC, Melbourne**
- Mobile Operators – just use a state (or island!)
 - 153.66.154.0/24, **ID, ID-BA,**
- Satellite ISPs – large state or small country
 - 153.66.153.0/24, **IN, IN-MH**
 - 153.66.152.0/24, **SG, ,**
- Public clouds and CDNs – OK to specify cities
 - 153.66.151.0/24, **AU, AU-NSW, Sydney**

Best practice – Publish to APNIC !

- **RFC9632** - *Instant and free visibility of geofeed URL*
- **Remarks** section in *inetnum* -> add “Geofeed <url>”
- **Host with care**
 - Always-valid TLS certs
 - Welcome crawlers & bots
 - Don't geo block
 - Content-Type = text/csv; charset=utf-8

An Ask for APNIC's “MyAPNIC”/DASH

In a survey - APNIC community's #2 barrier was “unsure how APNIC/NIR can help publish geofeeds”

Please implement “1-click” advertisement of IP Geofeed URLs via RDAP (RFC 9877)



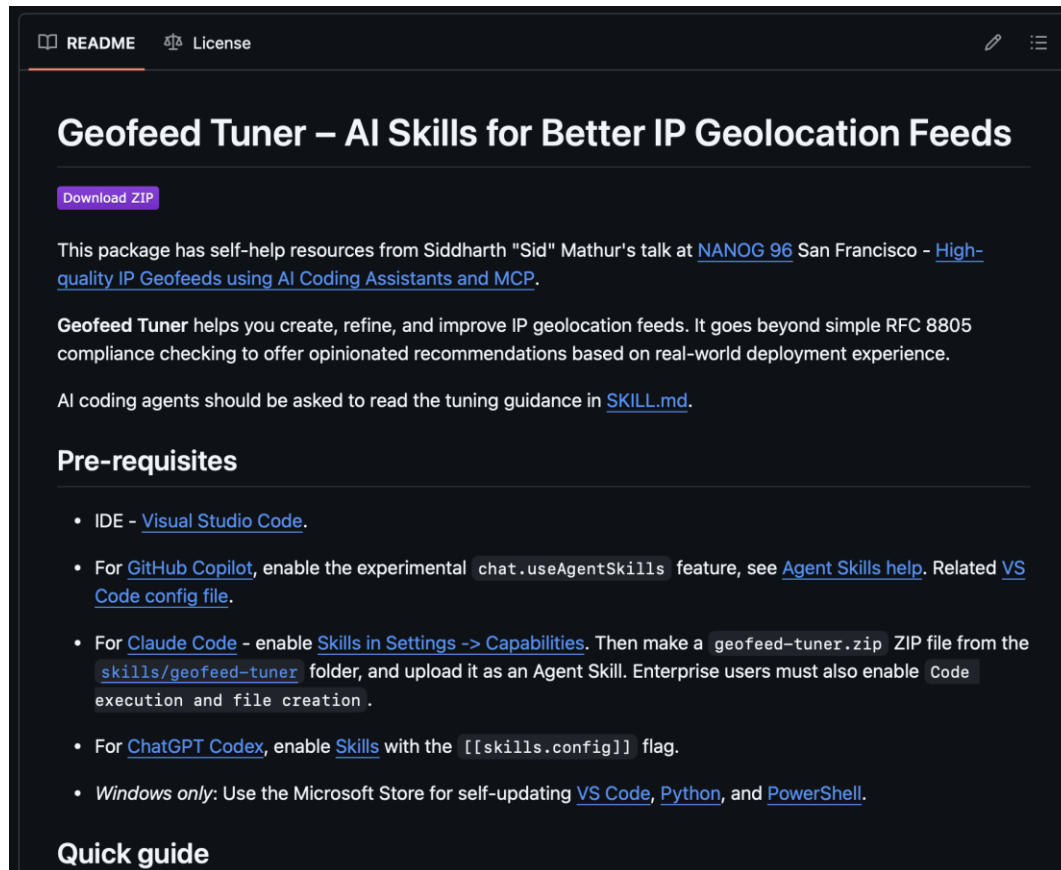
Using AI Coding Assistants

Reducing the “heavy lift” with conversational AI tools

AI – Prompting tips (ChatGPT, GitHub Copilot etc.)

- Step 1: Make it read RFC8805 and **“think deeply”**
- Step 2: Paste an initial CSV file from IPAM -> ask chat for **syntax**
- Step 3: Fix country (territory) codes
- Step 4: Fix and verify with country + state (region) codes
- Step 5: Add city name where needed
- Step 6: Ask to **audit semantics including geo-accuracy**
- Validate city names for **accurate reverse lookup (MCP!)**

tuning-geofeeds - An opinionated AI ‘Skill’



<https://github.com/fastah/ip-geofeed-skills/>

- A self-help, AI “skill” that you can use at home
- Tested with GitHub Copilot, Claude Code, OpenAI Codex, and Amp Code AI coding assistants.
- Click “Download ZIP” and open folder in Visual Studio Code

RFC 8805 IP Geolocation Feed Validation

Comprehensive Analysis Report

FILE	REPORT DATE	TOTAL ENTRIES	PASS RATE
geolocation.csv (AS3491 Network)	January 27, 2026	1,796 rows	94.8% (1,702 valid)

Summary Statistics

VALID ROWS

1,702

ERRORS FOUND

94

WARNINGS

220

UNIQUE SUBNETS

1,796

RFC 8805 Compliance Status

✓ Compliant Areas

✗ Non-Compliant Areas

tuning-geofeeds – suggestions list

Filter by Status: SUGGESTION ▾

Showing 42,345 of 43,749 entries

Line	IP Prefix	Country	Region	City	Status	Messages
130	104.23.240.0/24	 DE		Frankfurt	SUGGESTION	• Consider adding region code — city 'Frankfurt' specified without region
131	104.23.241.0/24	 BE		Brussels	SUGGESTION	• Consider adding region code — city 'Brussels' specified without region
132	104.23.242.0/24	 BE		Brussels	SUGGESTION	• Consider adding region code — city 'Brussels' specified without region
139	104.23.249.0/24	 MW		Lilongwe	SUGGESTION	• Consider adding region code — city 'Lilongwe' specified without region
142	104.23.252.0/24	 US		Newark	SUGGESTION	• Consider adding region code — city 'Newark' specified without region
143	104.23.253.0/24	 US		Newark	SUGGESTION	• Consider adding region code — city 'Newark' specified without region
144	104.23.254.0/24	 BR		São Paulo	SUGGESTION	• Consider adding region code — city 'São Paulo' specified without region
145	104.23.255.0/24	 BR		São Paulo	SUGGESTION	• Consider adding region code — city 'São Paulo' specified without region
155	108.162.220.0/24	 AT		Vienna	SUGGESTION	• Consider adding region code — city 'Vienna' specified without region

tuning-geofeeds – warnings list

Filter by Status:

WARNING



Showing 52 of 43,749 entries

Line	IP Prefix	Country	Region	City	Status	Messages
27042	2606:54c0:4678::/45				WARNING	• Large IPv6 prefix (/45) — verify this is intentional • Empty country code — subnet may be intentionally un-geolocated
37131	2606:54c3:0:15a5::/64				WARNING	• Empty country code — subnet may be intentionally un-geolocated
40658	2a09:bac2:4678::/45				WARNING	• Large IPv6 prefix (/45) — verify this is intentional • Empty country code — subnet may be intentionally un-geolocated
47486	2a09:bac3:4678::/45				WARNING	• Large IPv6 prefix (/45) — verify this is intentional • Empty country code — subnet may be intentionally un-geolocated
54067	104.28.25.232/32				WARNING	• Empty country code — subnet may be intentionally un-geolocated
54068	104.28.25.233/32				WARNING	• Empty country code — subnet may be intentionally un-geolocated

tuning-geofeeds- errors list

Filter by Status: **ERROR** ▾

Showing 1,352 of 43,749 entries

Line	IP Prefix	Country	Region	City	Status	Messages
17340	104.28.111.30/32	 MX	MX-DIF	Mexico City	ERROR	• Unknown region code: MX-DIF
17341	104.28.111.31/32	 MX	MX-DIF	Mexico City	ERROR	• Unknown region code: MX-DIF
17787	104.28.114.0/32	 AT	AT-09	Vienna	ERROR	• Unknown region code: AT-09
17788	104.28.114.1/32	 AT	AT-09	Vienna	ERROR	• Unknown region code: AT-09
17836	104.28.114.59/32	 SI	SI-61	Ljubljana	ERROR	• Unknown region code: SI-61
17837	104.28.114.60/32	 SI	SI-61	Ljubljana	ERROR	• Unknown region code: SI-61
18158	104.28.117.30/32	 LK	LK-01	Colombo	ERROR	• Unknown region code: LK-01
18159	104.28.117.31/32	 LK	LK-01	Colombo	ERROR	• Unknown region code: LK-01
18265	104.28.117.152/32	 IN	IN-CT	Bhilai	ERROR	• Unknown region code: IN-CT

“Specific Knowledge” using MCP servers

LLM = statistical knowledge, MCP = specific knowledge

Model Context Protocol = USB-C port

- Specific knowledge we may want answered
 - Look me up the **state code** for “Vienna, Austria”
 - “AT, <blank>, Vienna” => fixed to “AT,AT-9,Vienna
 - I mean “*that* Rampur” – **disambiguate** it for me
 - “IN, <blank>, Rampur” => forced to select between UP, HP, MP etc.
 - Show me an **interactive map**
 - Points, Regions (Hexagonal grids, Uber H3 cells), Rectangular cells

Model Context Protocol - suggested

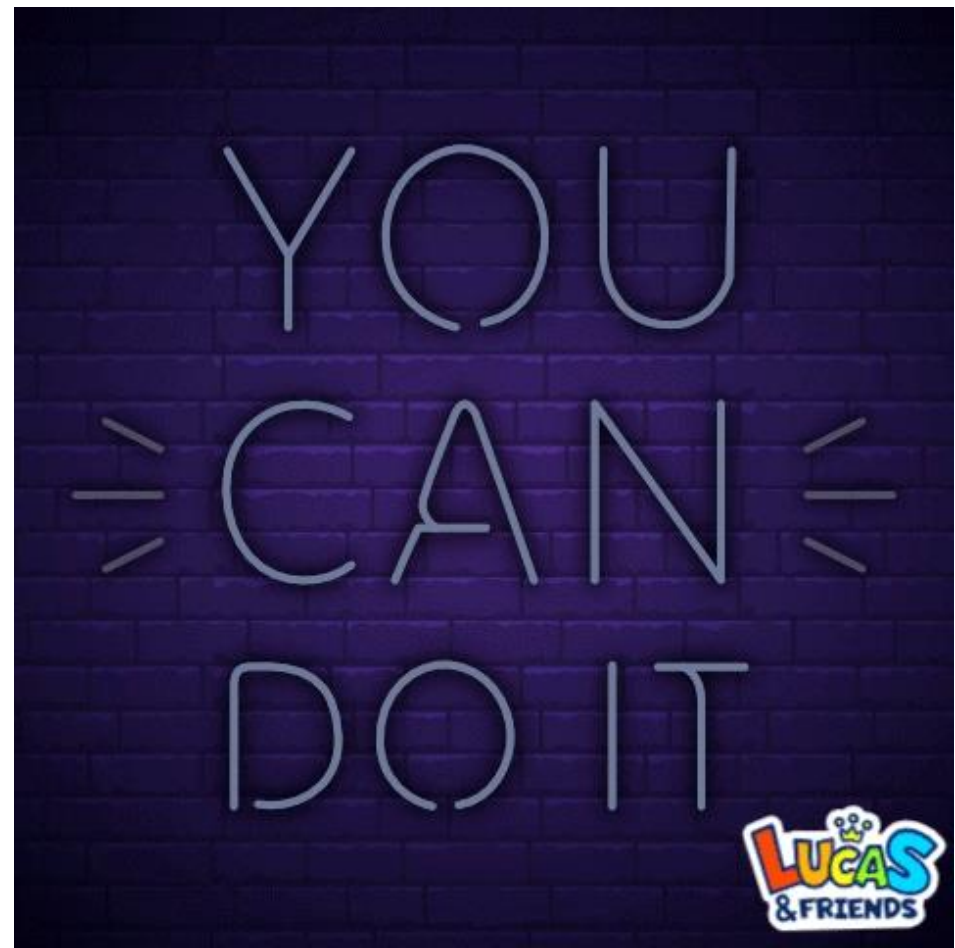
- GitHub MCP – CSV publishing
 - Publishing to the world (RFC9632) via your org's GitHub
 - Docs: <https://github.com/github/github-mcp-server>
- Fastah MCP – RFC8805 semantic checker
 - (research preview) – AI Skill “*tuning-geofeeds*”
<https://github.com/fastah/ip-geofeed-skills/>
 - MCP for place name validation: <https://mcp.fastah.ai/mcp>

And, that's a WRAP!

- What are IP Geofeeds
- How to author them like a champ
- How to manage your IP's "geo reputation"



↑ SCAN ME ↑
TAKE HOME AI SKILL



Sid Mathur

sid@getfastah.com, +1-617-500-7576

Fastah Inc. – an IP geolocation data company