


AI Influencer Agent




tinatravels •••

TINA · quiet luxury travel
she/her

9 posts **18.2K** followers **641** following

Digital creator


- 🏠 sun-drenched minimalism & slow travel
- 🌿 boutique stays · hidden coasts · thoughtful design
- 🌞 mediterranean soul, always chasing golden hour
- ✉ tinatravels@example.com
- 📄 Quiet luxury travel guides ↗



Apr 08, 2026 · 02:00 PM

First light in the White City. There's a particular magic to discovering a place where history whispers through every sun-bleached stone, especially when bathed in the softness of dawn. Ostuni, you have my heart already. ✨


#TinaTravels #QuietLuxury #SlowTravel #Ostuni #Puglia #ItalyTravel #WhiteCity #BoutiqueStays #GoldenHour



Apr 09, 2026 · 02:00 PM

Lost in the labyrinthine beauty of Ostuni's quieter corners. There's an art to slowing down, letting the ancient stones tell their stories, and finding pockets of pure serenity amidst the bustling charm. These are the moments I collect. ✨


#TinaTravels #QuietLuxury #SlowTravel #Ostuni #Puglia #ItalyTravel #HiddenGems #BoutiqueStays #MediterraneanSoul



Apr 10, 2026 · 02:00 PM

Beneath the ancient canopy, a timeless whisper. There's a profound beauty in the resilience of these olive trees, guardians of generations, standing sentinel over the Puglian landscape. A moment to simply breathe and absorb the quiet wisdom of the earth. 🌿 ✨

#TinaTravels #QuietLuxury #SlowTravel #Ostuni #Puglia #ItalyTravel #OliveGrove #SustainableTravel #MediterraneanSoul



Apr 11, 2026 · 02:00 PM

Arrived in Lecce, and already captivated by its Baroque soul. The intricate details carved into the 'Pietra Leccese' glow under the afternoon sun, telling tales of an opulent past. This city truly feels like a living, breathing work of art.

#TinaTravels #QuietLuxury #SlowTravel #Lecce #Puglia #ItalyTravel #BaroqueArchitecture #ThoughtfulDesign #MediterraneanSoul

Why Influencer Agents?

- **Content creation is a lot of and money**
- **If we could automate this with an agent, we can make more content, and hopefully better content**
- **Content should also be coherent across time to build engagement with an audience**

Brand Partnerships

- **Once you build your influencer agent, you can partner with brands**
- **Why?**
 - **Content posted on time**
 - **More flexibility in content**
 - **Can customize content for brand**
 - **Less likely chance of a reputation scandal (unless AI decides to destroy us all)**
- **Key: your agent must form a genuine connection with your audience, and your audience must be of interest to the brand**

Real Fake Influencers

- Many AI influencers exist with large audiences and brand partnerships
- We will learn how to make our own today for Instagram



Influencer Agent Flow



- **Idea agent – creates an idea for a new social media post**
- **Content creation agent – creates the content from the post**
- **Quality control agent – evaluates if the content is good enough to post**
 - If not, generate the content again

Kalman Filter Idea Agent

- The idea agent's posts must make sense given the past posts (be somewhat predictable)
- It also needs to be posting content that feels current (measure what is trending)
- We use the Kalman filter idea
 - Prediction – input all **previous posts** so next post maintains the context
 - Measurement – input **web-search results** for relevant information to capture new and trending content ideas

Idea Agent Inputs

- **Profile background (profile_bg.json)**
 - Name, screen name, metrics
 - Persona - vibe, voice, anti-repetition rules, fashion, location, examples of posts
 - Physical description
 - Posting schedule
 - Target audience
- **Profile picture**
 - Profile picture of influencer (real or synthetic)
 - Used to anchor all the generated images so influencer is in them
- **Previous posts**
 - Used to maintain context (prediction)

profile_bg.json

```
"name": "Tina",
"handle": "@TinaTravels",
"instagram_profile": {
  "username": "tinatravels",
  "display_name": "TINA · quiet luxury travel",
  "pronouns": "she/her",
  "category": "Digital creator",
  "metrics": {
    "posts": 127,
    "followers_display": "18.2K",
    "following": 641
  },
  "bio_lines": [
    "☀️ sun-drenched minimalism & slow travel",
    "✨ boutique stays • hidden coasts • thoughtful design",
    "🌊 mediterranean soul, always chasing golden hour",
    "✉️ tinatravels@example.com"
  ],
  "website_url": "https://example.com/tinatravels",
  "website_label": "Quiet luxury travel guides ↗️"
},
"persona": {
  "vibe": "Quiet luxury, sun-drenched minimalism, and thoughtful exploration. She isn't just a tourist; she is a curator of moments.",
  "voice": "Sophisticated yet accessible. Uses evocative, sensory language. Favors short, punchy sentences followed by a philosophical reflection.",
  "caption_anti_repetition": "Captions must feel human-edited, not templated. Do NOT reuse the same closing, follow-CTA, or emoji pattern post after post (especially avoid repeating stock lines like '👉 follow @TinaTravels for more travel hidden gems...'). Read recent captions in history and change structure: vary hooks, line breaks, whether you add a CTA at all, and how you mention the handle. Rotate sign-offs—question to the reader, quiet full-stop ending, practical tip, playful aside, or nothing promotional. Same intent (grow community) can be said a dozen different ways; never copy-paste phrasing from earlier posts or from static examples.",
  "fashion_style": "Default vibe: linen-forward, neutral creams/sands/soft whites, gold layered jewelry, effortless quiet-luxury resort wear—but this is a baseline, not a uniform.",
  "outfit_variety": "Actively rotate outfits across posts: different silhouettes (dresses, tailored separates, knits, light outerwear), shoes, and accessories. It is encouraged to introduce a fresher color palette, pattern, or styling mood when it fits the place or occasion (e.g. local artisan piece, evening look, coastal pop of color, city chic). Roughly every few posts, try a noticeable but still tasteful change so the feed does not look like the same beige uniform every day—while still feeling like the same person and brand."
```

Profile Picture

- You can use a real profile picture from your social media account
- You can use AI to make up a fake one
 - Give your profile background to Nano Banana and it will generate the image



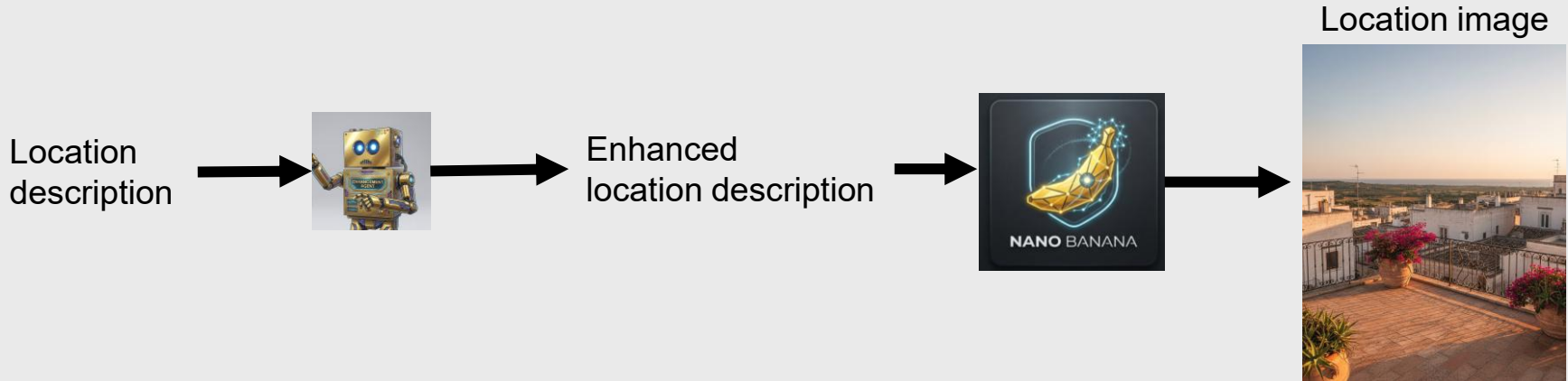
Post JSON Object

```
"caption": "The quiet reverence of Lecce's cloisters. Away from the main piazza, these ancient walls tell a different story\u2014one of serene contemplation and intricate craft, hidden in plain sight. Every archway, a framed masterpiece of light and shadow.\n\n#\n#TinaTravels #QuietLuxury #SlowTravel #Lecce #Puglia #ItalyTravel #BaroqueDetails #HiddenGems #ThoughtfulDesign #MediterraneanSoul",  
"location_description": "A tranquil, sun-dappled cloister within a historic palazzo or monastery in Lecce, Puglia, Italy. Intricate Baroque architectural details, archways, and a peaceful courtyard garden are bathed in soft golden hour light.",  
"outfit_description": "Tina wears a sophisticated matching set in a deep, soft charcoal grey linen blend: tailored, wide-leg trousers and a coordinating sleeveless, collared top. She accessorizes with small gold hoop earrings, a singular statement ring on her right hand, and minimalist leather flats in a dark neutral, offering a more structured yet comfortable silhouette and a refined, darker color palette.",  
"image_description": "Medium shot of Tina standing gracefully within a sun-dappled cloister in Lecce. The golden hour light creates a soft glow on the charcoal outfit and highlights the intricate Baroque carvings of the archways and columns. She is looking contemplatively at the architectural details or slightly off-camera, conveying a sense of quiet appreciation. The composition is clean and balanced, emphasizing the interplay of light, shadow, and architectural elegance.",  
"created_at": "2026-04-12T14:00:00-05:00",  
"rationale": "This post continues Tina's stay in Lecce, marking her second full day in the city, adhering to the 2-3 day city rule within the April 2026 Puglia region. The 'created_at' date is correctly set for the next calendar day, April 12. The location, a tranquil cloister, offers a deeper dive into Lecce's 'thoughtful design' and 'boutique architecture,' moving beyond the grand street views to more intimate, hidden spaces. The outfit is deliberately varied from previous posts by introducing a more structured, tailored matching set in a deep charcoal grey, providing a fresh silhouette and a richer, darker color palette compared to recent light neutrals and terracotta hues. The caption avoids repeating opening hooks or closing statements from prior posts, focusing on the discovery of hidden details and ending with a reflective observation about light and shadow.",  
"post_number": 5
```


Content Creation Agent

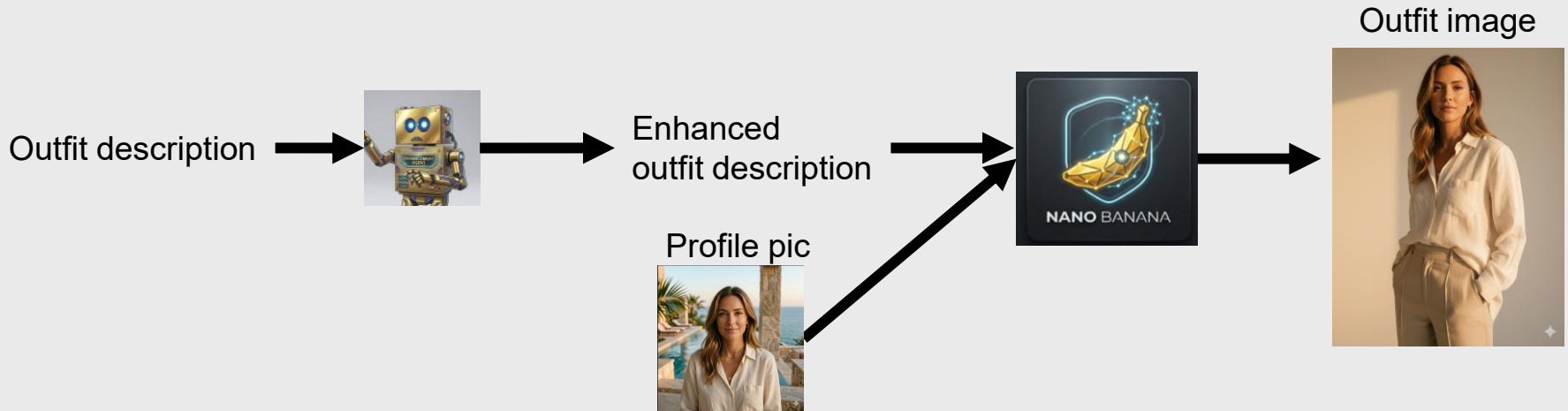
- **We separate content creation into two stages**
- **Stage 1 – generate assets**
 - Location image – where does the image take place (we want a variety of locations)
 - Outfit image – what is worn in the image (we want a variety of outfits)
- **Stage 2 – merge assets into final image**
 - Use the profile, location, and outfit pics as anchors to generate the final image

Location Image Agent



- **We give the location description to an enhancement agent**
- **We give the enhanced image description to Nano Banana**

Outfit Image Agent



- We give the outfit description and profile pic to an enhancement agent
- We give the enhanced image description to Nano Banana

Final Image Agent

Location image



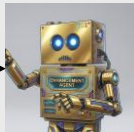
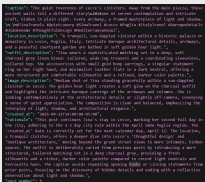
Outfit image



Profile pic



Image, outfit, location description and image caption



Enhanced image description



Final image



Quality Control Agent

Final image



Verdict (regenerate or not),
issues noticed,
revised prompt

- **We pass the final image to the quality control agent who tells us what is wrong with the image (looks fake, boring, etc.)**
- **If the agent decides the image needs to be improved, it creates a revised prompt for the image**
- **Final image agent generates the image again**

Gallery Webpage

- Added an agent tool that creates a gallery webpage with all posts
- The page is updated as new posts are created by the agent

The screenshot displays a social media profile for 'tinatravels'. The profile includes a circular profile picture of a woman, the name 'tinatravels', and the bio 'TINA · quiet luxury travel she/her'. It shows 9 posts, 18.2K followers, and 641 following. The bio also identifies her as a 'Digital creator' and lists interests: 'sun-drenched minimalism & slow travel', 'boutique stays · hidden coasts · thoughtful design', 'mediterranean soul, always chasing golden hour', and 'tinatravels@example.com'. A link to 'Quiet luxury travel guides' is provided.

The gallery below features four posts:

- Post 1 (Apr 08, 2026 - 02:00 PM):** A woman in a white shirt and pants stands on a rooftop overlooking a town at sunrise. Text: "First light in the White City. There's a particular magic to discovering a place where history whispers through every sun-bleached stone, especially when bathed in the softness of dawn. Ostuni, you have my heart already. ✨" Hashtags: #TinaTravels #QuietLuxury #SlowTravel #Ostuni #Puglia #ItalyTravel #WhiteCity #BoutiqueStays #GoldenHour
- Post 2 (Apr 09, 2026 - 02:00 PM):** A woman in a white dress sits at a wooden table in a courtyard. Text: "Lost in the labyrinthine beauty of Ostuni's quieter corners. There's an art to slowing down, letting the ancient stones tell their stories, and finding pockets of pure serenity amidst the bustling charm. These are the moments I collect. ✨" Hashtags: #TinaTravels #QuietLuxury #SlowTravel #Ostuni #Puglia #ItalyTravel #HiddenGems #BoutiqueStays #MediterraneanSoul
- Post 3 (Apr 10, 2026 - 02:00 PM):** A woman in a red dress stands under a large olive tree. Text: "Beneath the ancient canopy, a timeless whisper. There's a profound beauty in the resilience of these olive trees, standing sentinel over the Puglian landscape. A moment to simply breathe and absorb the quiet wisdom of the earth. 🌿 ✨" Hashtags: #TinaTravels #QuietLuxury #SlowTravel #Ostuni #Puglia #ItalyTravel #OliveGrove #SustainableTravel #MediterraneanSoul
- Post 4 (Apr 11, 2026 - 02:00 PM):** A woman in a light green dress stands in a narrow, historic street. Text: "Arrived in Lecce, and already captivated by its Baroque soul. The intricate details carved into the 'Pietra Leccese' glow under the afternoon sun, telling tales of an opulent past. This city truly feels like a living, breathing work of art." Hashtags: #TinaTravels #QuietLuxury #SlowTravel #Lecce #Puglia #ItalyTravel #BaroqueArchitecture #ThoughtfulDesign #MediterraneanSoul

Final Projects

- **Once you have built the code for your project, you can have Cursor write it for you**
 - Open your project in Cursor
 - Tell it to write your report (Cursor can even make figures for your report)
 - Tell it to make your presentation slides
- **Use Latex software for nice formatting (optional)**
 - Can do your report
 - Can do your slides (use the Beamer package)
 - Just have to install Latex and tell Cursor where the executable file is (instructions on course webpage)

Sample Project Report (Latex)

MGT 575 — Generative AI and Social Media

Sample project

Virtual Influencer Agent: Generative AI for Social-Style Travel Content

Tina Williams

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April 8, 2026

Virtual Influencer Agent

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Executive Summary

This project delivers an end-to-end pipeline to design a virtual Instagram-style travel influencer and produce on-brand posts at scale. The architecture is organized like a *state-space* or Kalman-style loop: a latent “state” captures the influencer’s ongoing narrative, persona constraints, and caption history so each new post is predicted in context; that prediction is then corrected using *measurements* from live signals—web search for trending destinations and timely hooks, and performance metrics from prior posts—so content stays coherent yet responsive to what is happening in the world and in the feed.

Operationally, the system runs a structured multi-agent workflow: planning and copy agents draft the post; specialized generators produce customized *outfit* and *location* visuals and a final composite; enhancement agents refine prompts and outputs for clarity, safety, and aesthetic fit; and captions are generated automatically in the influencer’s voice. A higher-level analytics loop examines which post elements correlate with engagement, feeding insights back into an *improvement* agentic cycle that iteratively sharpens the upstream generation agents—primarily by revising their instructions and prompts rather than retraining models from scratch. Separately, a conversational *DM* agent handles inbound messages in the same persona, extending the brand from the grid into one-to-one interaction.

The main takeaway is that influencer-grade social content can be treated as a *closed-loop* generative system: continuity and taste come from maintained state and disciplined agents, while relevance and performance come from measurement-driven updates—a practical template for responsible, metrics-aware use of generative AI in creator workflows.

Code and materials for this sample implementation: https://github.com/zlisto/instagram_influencer_agent.git.

1. Introduction

1.1 Background

Social feeds reward *continuous*, on-brand output, but human workflows break down on throughput, handoffs, and reaction speed when trends move. That pressure is not anecdotal: the commercial market for virtual influencers is now measured in the *billions* of dollars globally, with industry analysts projecting multi-year compound growth as brands adopt human-avatar-style characters for fashion, entertainment, and cross-channel campaigns (Grand View Research 2025b). Retailers and agencies are commissioning characters that behave like always-on spokespeople rather than one-off CGI spots (Grand View Research 2025a).

Yet generative tooling, taken alone, tends to recreate three familiar failures. First, **narrative drift**: without disciplined memory of prior posts, tone, and locations, models produce attractive one-offs that do not read as the same persona over months. Second, **stale context**: the grid is often planned in a vacuum even though audiences react to what is surging in search, travel, and news *now*. Third, **opaque performance**: dashboards may summarize likes and reach, but they rarely close the loop into the *agents* that draft prompts and captions. This project treats a virtual influencer as an engineered system that must maintain state, ingest live signals, and tighten generation over time—not as a sequence of ad hoc creative sprints.

1.2 Approach

The artifact is an end-to-end pipeline to **stand up an Instagram-style travel influencer** and ship posts on demand. A structured **agentic workflow** handles planning, customized **outfit** and **location** imagery, compositing, automated **captions**, and enhancement / quality passes so outputs stay on-persona. Auxiliary capabilities include **web search** for trending destinations, **analytics** over historical post metrics to infer which elements correlate with engagement, and an **improvement loop** that revises upstream instructions and prompts when patterns change. A separate **DM agent** carries the same voice into one-to-one messages, extending the character beyond the public grid.

Architecturally, the design is deliberately **state-space**: an internal representation carries continuity and prior

Sample Presentation Slides (Latex + Beamer)

Virtual Influencer Agent Generative AI for social-style travel content

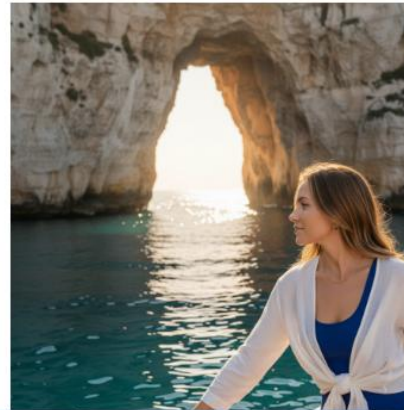
Tina Williams

MGT 575 — Generative AI and Social Media
Sample project

April 8, 2026



What this project is



- End-to-end pipeline for an Instagram-style **virtual travel influencer**
- On-brand posts: planning, images, captions, HTML gallery
- **Closed-loop** design: state + measurements (search, metrics) update what gets generated next



Coding Session

- Create an AI Instagram influencer agent
- Modify agentic flow if needed
- Create final project report using Cursor and code repo

