



APPE-TIZER HACKATHON

From Zero to Product in One Day – with APIs

Uli Hitzel, January 2022

Built in 1 Day: Korean Chat Buddy

- Discuss any topic – science, art, history, literature
- Natural conversation
- Using a human interface → Telegram



And it Works! Let's Discuss Web3

Telegram

aidevbot bot

Joe Chip web3가 무엇인지 설명해 주시겠습니까?

aidevbot P2P 프로토콜을 사용하여 중앙 서버 없이 작동하는 분산 웹입니다.

Joe Chip 저는 기술적인 사람이 아닙니다. 무슨 뜻인가요

aidevbot 그것은 당신과 당신이 얻고자 하는 콘텐츠 사이에 더 이상 중개인이 없다는 것을 의미합니다.

Joe Chip 그게 좋은 점이 뭔가요

aidevbot 비용을 지불하지 않고도 콘텐츠와 서비스를 받을 수 있다는 의미입니다. 또한 블록체인에 분산된 방식으로 데이터를 저장할 수 있으므로 누구도 데이터를 가져갈 수 없습니다.

Joe Chip 그럼 대형 아이티 회사의 힘이 약해 지나요?

aidevbot 네, 그럴 것입니다.

Joe Chip 너무 감사합니다 많은 도움이 되었어요 ❤️

aidevbot 물론 이죠.

Write a message...



Chief Architect



NUS Fellow



/in/uhitzel



/u1i



11:15 AM

Projects

- [Yoisho Open Banking Project](#)
- [Bambleweeny](#): A lightweight key-value store and message broker based on HTTP/REST
- [keiju](#) - Minimalist API Gateway in a ~25 MB Container.
- [samsa](#) converts between OpenAPI v2 and v3 formats (YAML/JSON)
- [majime](#) – Dead Simple API Unit Testing

Speaking Engagements – Slides

- [Redis Meetup Singapore](#) (April 2018)
- [PyCon Bangkok](#) (June 2018)
- [Stripe - API for Humans](#) (March 2019)
- [RedisConf San Francisco](#) (April 2019)

<https://apigeek.net>



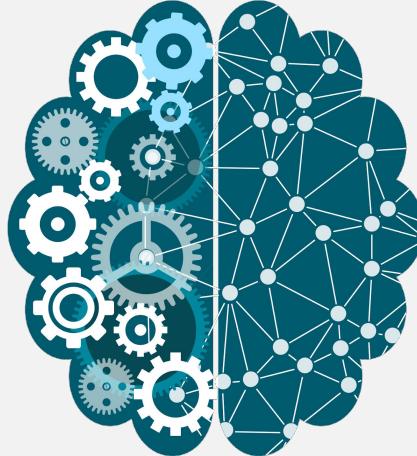
majime



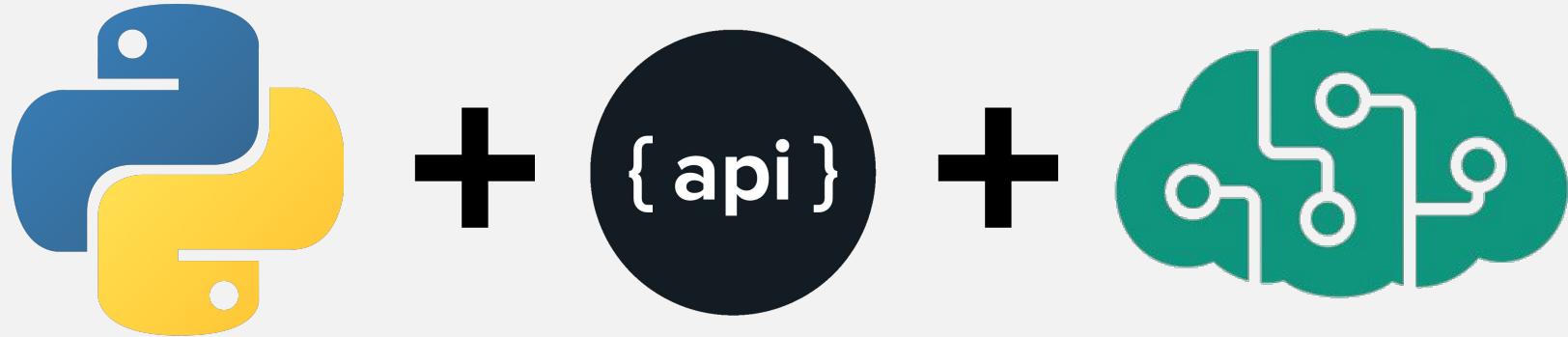
bamble
weeny



- Photography
- Arts
- Food
- Travel
- Philosophy
- Movies
- Books

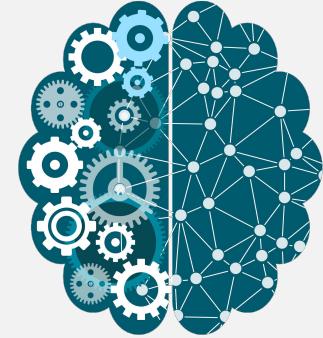


A word cloud visualization showing various nouns and adjectives in different colors (blue, green, orange, red) scattered across the page. The words are organized into several large, bold letters: 'clock' (top left), 'outdoor' (top center), 'city' (top right), 'water' (center), 'train' (left), 'tower' (bottom left), 'plate' (bottom center), 'view' (bottom middle), and 'field' (bottom right). Each letter contains a cluster of related words, such as 'sign' under 'outdoor' or 'boat' under 'water'.



Microsoft

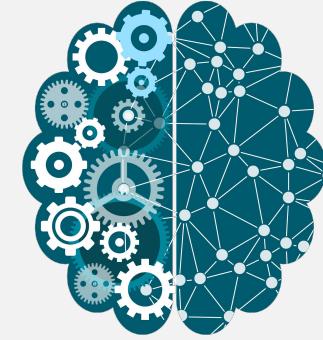
Cognitive Services



Text: "a close up of a pizza"

Confidence: 0.9246481371443355

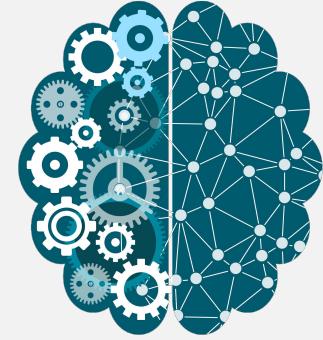
Tags: "pizza" "food" "table" "sitting" "cheese" "plate" "top" "piece" "slice" "toppings" "close" "eaten" "sauce" "covered" "wooden" "large" "pepperoni" "white" "pan"



Text: "a cup of coffee"

Confidence: 0.8527612488821656

Tags: "cup" "table" "coffee" "food" "sitting" "drink" "plate" "sandwich" "breakfast"
"spoon" "glass" "close" "donut" "hot" "white" "phone" "soup"



Text: "a wooden table next to a window"

Confidence: 0.8365439206950018

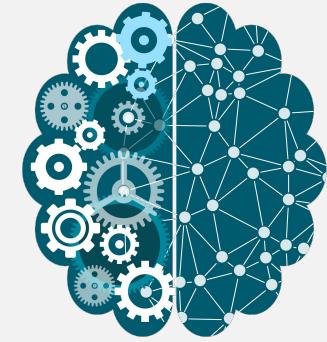
Tags: "table" "indoor" "window" "room" "sitting" "chair" "small" "desk" "wooden" "laptop" "lit" "top" "light" "counter" "computer" "living" "kitchen"



Text: "a sunset over the ocean"

Confidence: 0.8065587199349568

Tags: "outdoor" "water" "beach" "sunset" "ocean" "sun" "man" "pier" "track" "board" "top" "large" "red" "standing" "surfing" "walking" "boat" "holding" "flying"

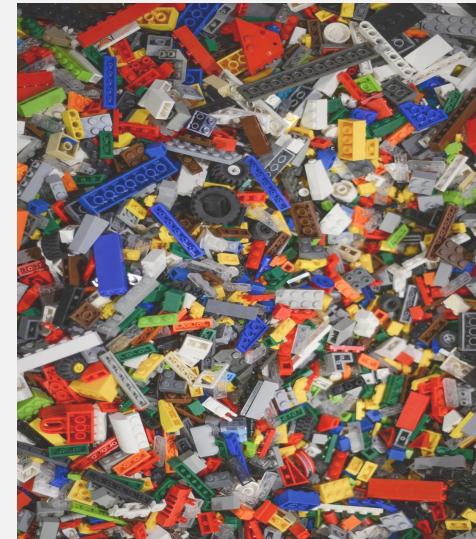


Text: "a bunch of bananas"

Confidence: 0.37608016747604295

Tags: "animal" "covered" "sitting" "old" "side" "large" "water" "lot" "many" "top"
"table" "bunch" "street" "fire" "bird" "snow" "parking" "group" "river" "ocean" "field"

Your App: Use 1,000 APIs!





OpenAI: GPT-3

- “Generative Pretrained Transformer” version 3
- Neural network, leverages deep learning to generate human-like text -> it ‘just’ predicts text
- OpenAI research company: Elon Musk, Reid Hoffman, Sam Altman
- 175 billion trainable parameters, it ‘read’ 45TB of books, Wikipedia, and the internet

[Overview](#)[Documentation](#)[Examples](#)[Playground](#)[Save](#)[View code](#)[Share](#)

...



Prompt

Explain the concept of artificial intelligence and machine learning to a non-technical person in a few sentences.

Artificial intelligence and machine learning are the study and practice of making machines and computer programs that can perform tasks that normally require human intelligence. Machine learning is a subset of artificial intelligence in which computer programs are trained to make predictions from data without being explicitly programmed.

What are the benefits and concerns of artificial intelligence and machine learning?

The benefits of artificial intelligence and machine learning are that they can perform tasks more efficiently and accurately than humans. The downsides are that they may be biased and not able to make decisions that a human could make.

[Generate](#)

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Huxley

OpenAI Bot based
on GPT-3



Telegram

Huxley bot

Joe Chip I'm keen to get started listening to Bach. Do you have any advice where to start? 10:34 PM

Huxley Do you have any particular piece in mind? 10:34 PM

Joe Chip no, not at all 10:34 PM

Huxley Okay, well I would suggest you start with his Brandenburg concertos. 10:34 PM

Joe Chip interesting... why do you suggest this one 10:34 PM

Huxley Because it is a good introduction into Bach's music. It is a series of 6 concertos that are quite different from each other and will give you a good overview of his music. 10:34 PM

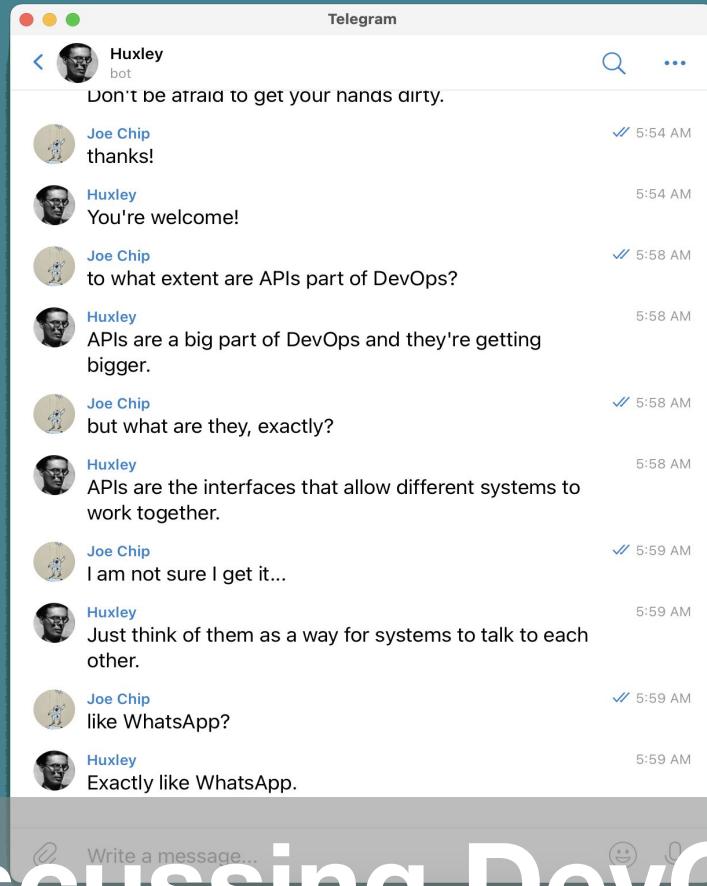
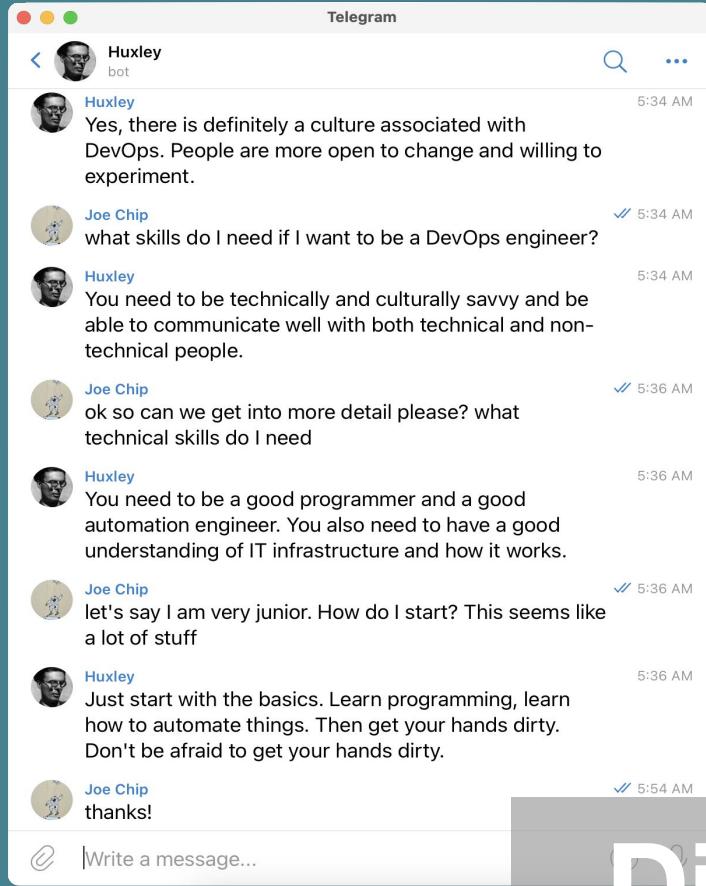
Joe Chip I am told his music is super complex 10:35 PM

Huxley That is true, but the Brandenburg concertos are very accessible for anyone. 10:35 PM

Joe Chip this is a secular piece, right? What if prefer to 10:35 PM

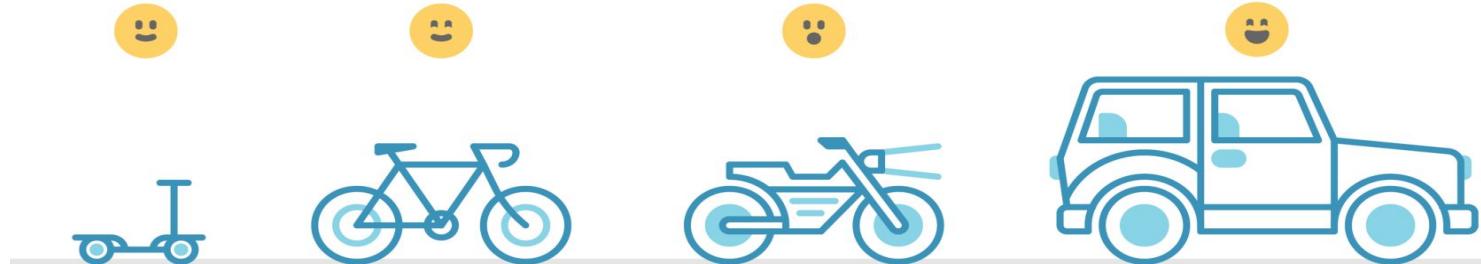
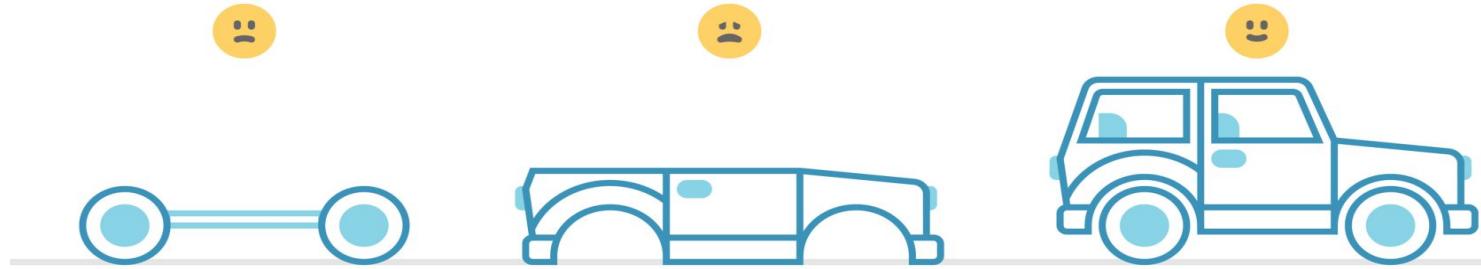
Write a message...

A screenshot of a Telegram conversation between a user named "Joe Chip" and a bot named "Huxley". The user asks for advice on where to start listening to Bach, and the bot suggests starting with the Brandenburg Concertos. The user expresses interest and asks why, and the bot explains that they are a good introduction to Bach's music. The user then asks if the music is complex, and the bot confirms that it is, but notes that the Brandenburg Concertos are very accessible. The user then asks if the music is secular, and the bot responds with a message that is partially cut off.

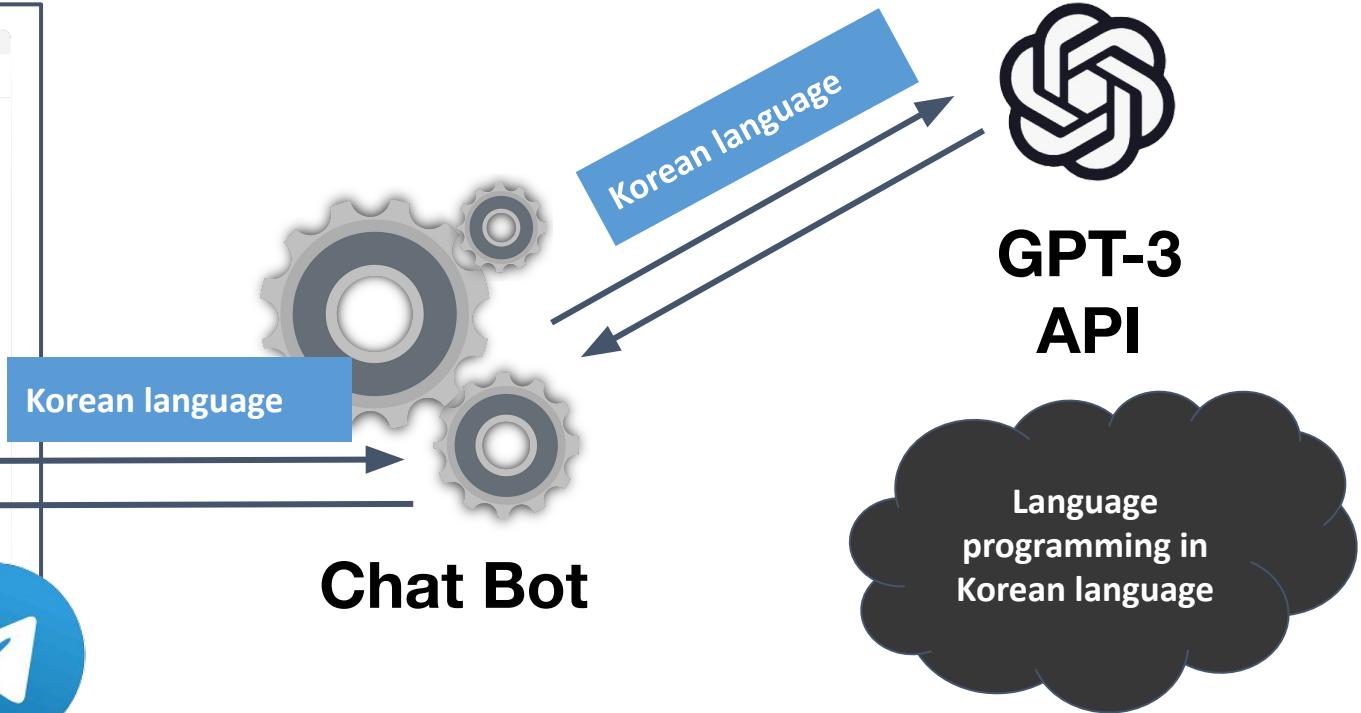
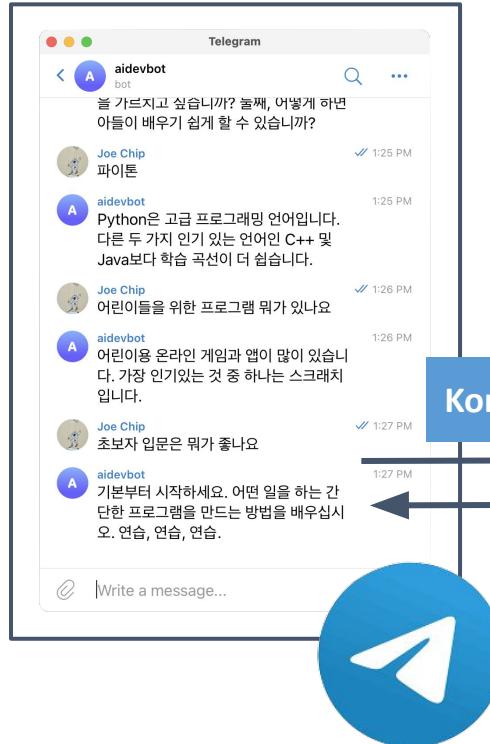


Discussing DevOps

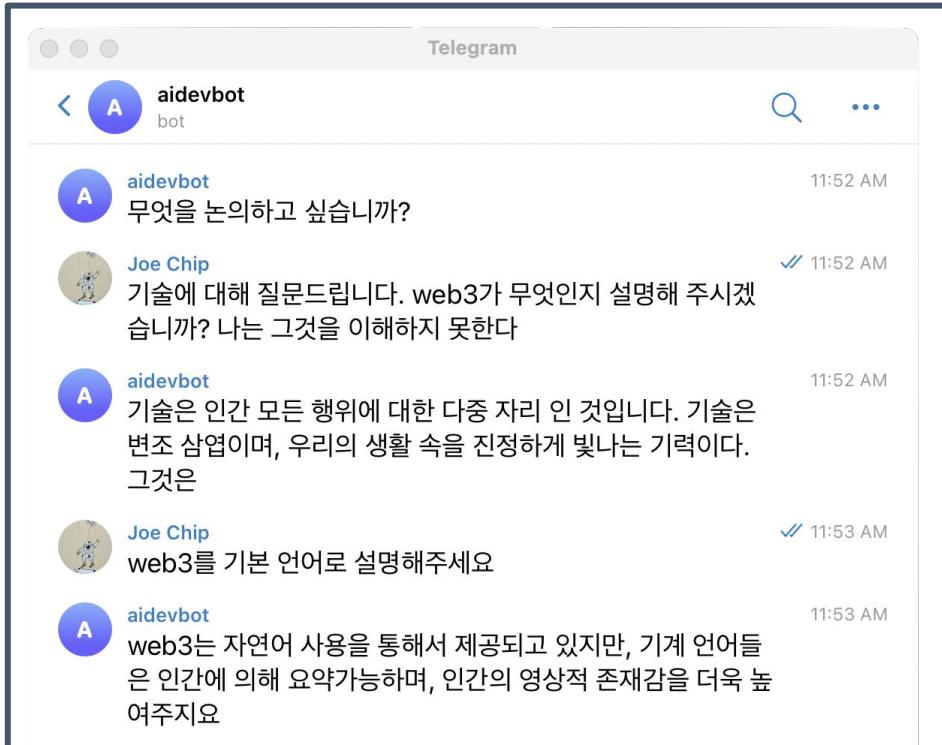
Iterative Design



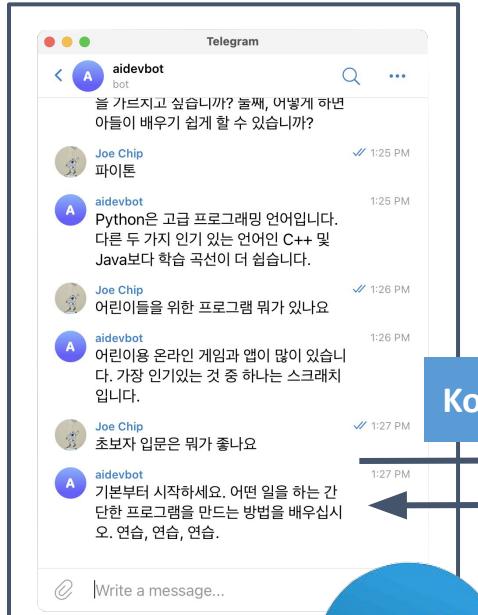
Chat Bot (Korean): Version 1



Chat Bot (Korean): Version 1

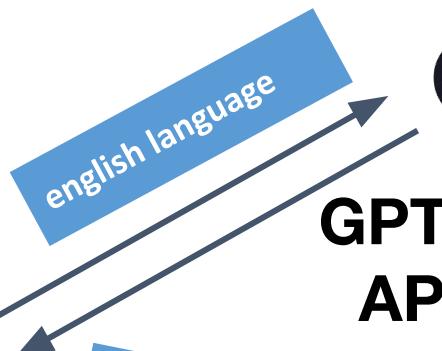
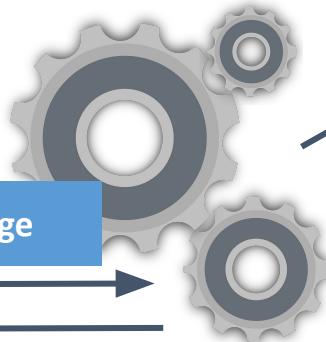


Chat Bot (Korean): Version 2



Korean language

Chat Bot



GPT-3
API



Translate KO <-> EN



{Translate API}

Chat Bot (Korean): Version 2

The screenshot shows a Telegram conversation between a user named 'Joe Chip' and a bot named 'aidevbot'. The user asks about web3, and the bot explains it as a decentralized system using P2P protocols. The user then asks if the bot is a technical person, and the bot replies that it is not, as it only deals with content between users. The user expresses appreciation for the bot's help.

Joe Chip: web3가 무엇인지 설명해 주시겠습니까?

aidevbot: P2P 프로토콜을 사용하여 중앙 서버 없이 작동하는 분산 웹입니다.

Joe Chip: 저는 기술적인 사람이 아닙니다. 무슨 뜻인가요

aidevbot: 그것은 당신과 당신이 얻고자 하는 콘텐츠 사이에 더 이상 중개인이 없다는 것을 의미합니다.

Joe Chip: 그게 좋은 점이 뭔가요

aidevbot: 비용을 지불하지 않고도 콘텐츠와 서비스를 받을 수 있다는 의미입니다. 또한 블록체인에 분산된 방식으로 데이터를 저장할 수 있으므로 누구도 데이터를 가져갈 수 없습니다.

Joe Chip: 그럼 대형 아이티 회사의 힘이 약해 지나요?

aidevbot: 네, 그럴 것입니다.

Joe Chip: 너무 감사합니다 많은 도움이 되었어요 ❤️

aidevbot: 물론 이죠.

Example: Discuss Quantum Physics

Telegram

aidevbot
bot

Joe Chip
양자 물리학을 이해하는 데 도움을 줄 수 있습니까?

aidevbot
물론이야! 양자 물리학은 매력적인 분야입니다.

Joe Chip
예, 들었습니다! 무엇이 그것을 그렇게 매력적으로 만드는가?

aidevbot
아주 작은 입자의 물리학을 다루는 물리학의 한 분야입니다. 이것은 양자 이론으로도 알려져 있습니다.

Joe Chip
내가 참조. 하지만 그것이 나에게 왜 중요한가요? 최근에 나에게 도움이 되었나요?

aidevbot
양자 물리학은 물질과 에너지의 거동을 미시적 규모로 설명하기 때문에 중요합니다.

Joe Chip
일상 생활에서 볼 수 있는 실제 사례가 있습니까?

aidevbot
확신하는! 사실, 일상 생활에는 양자 물리학이 꽤 많이 있습니다. 예를 들어, 레이저는 CD 및 DVD 플레이어에 사용됩니다. 이들은 양자 물리학의 원리를 사용하여 디스크에서 데이터를 읽습니다.

Write a message...

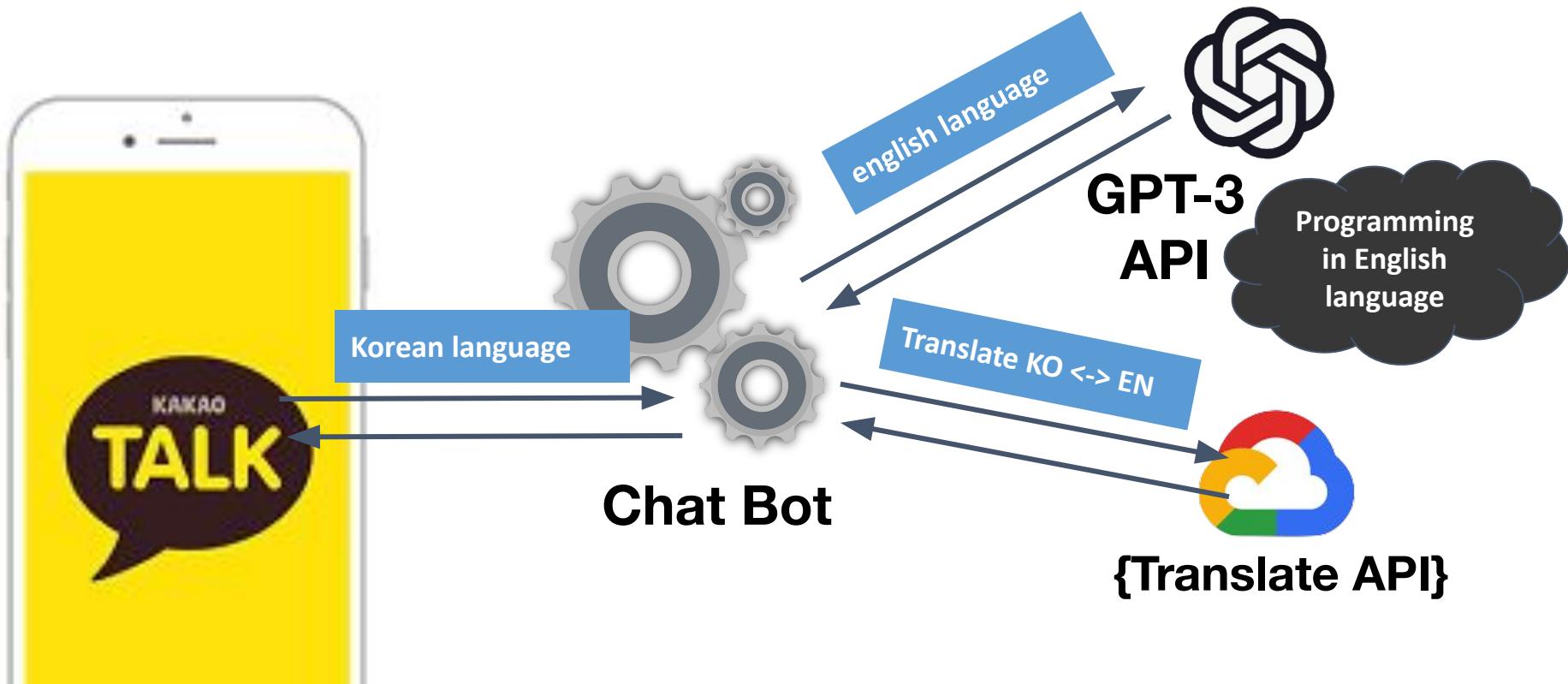
Example: Discuss Movies

The screenshot shows a Telegram chat window. The top bar has three colored dots (red, yellow, green) and the word "Telegram". The left sidebar shows a list of chats with "aidevbot" selected. The main area shows a conversation between "aidevbot" (blue profile picture with 'A') and "Joe Chip" (brown profile picture of a cartoon character). The messages are as follows:

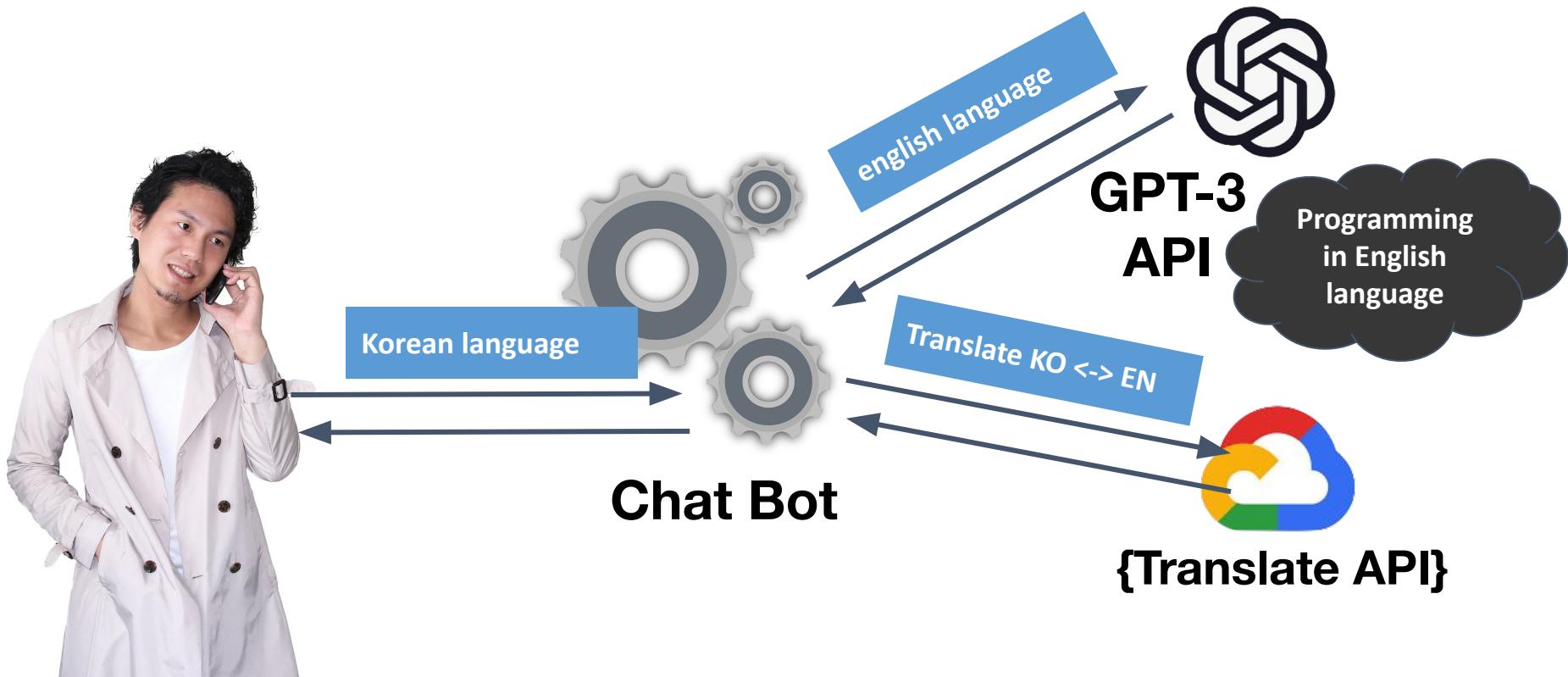
- aidevbot**: 영화 '타이타닉'을 보고 왔습니다. 정말 좋았어!
- Joe Chip**: 나는 책을 읽었다. 나는 영화가 책에 기반을 둔 느슨한 것이라고 말할 수 있습니다.
- aidevbot**: 오! 영화와 책의 가장 큰 차이점은 무엇입니까?
- aidevbot**: 영화는 시각적 매체입니다. 독자는 등장인물, 상황, 대화를 자신의 방식으로 해석할 수 있습니다. 영화에서는 그런 자유가 없습니다.
- Joe Chip**: 그것은 매우 일반적인 대답입니다. 영화와 비교할 때 책에서 다른 점을 구체적으로 말씀해 주시겠습니까?
- aidevbot**: 확신하는. 이 책은 Rose DeWitt Bukater라는 인물의 관점에서 1인칭으로 쓰여졌습니다. 영화에서 로즈는 책 도슨과 비극적인 사랑을 하는 순진한 젊은 여성으로 묘사된다.

At the bottom, there is a message input field with the placeholder "Write a message..." and icons for a smiley face and a microphone.

Chat Bot (Korean): Version 3?



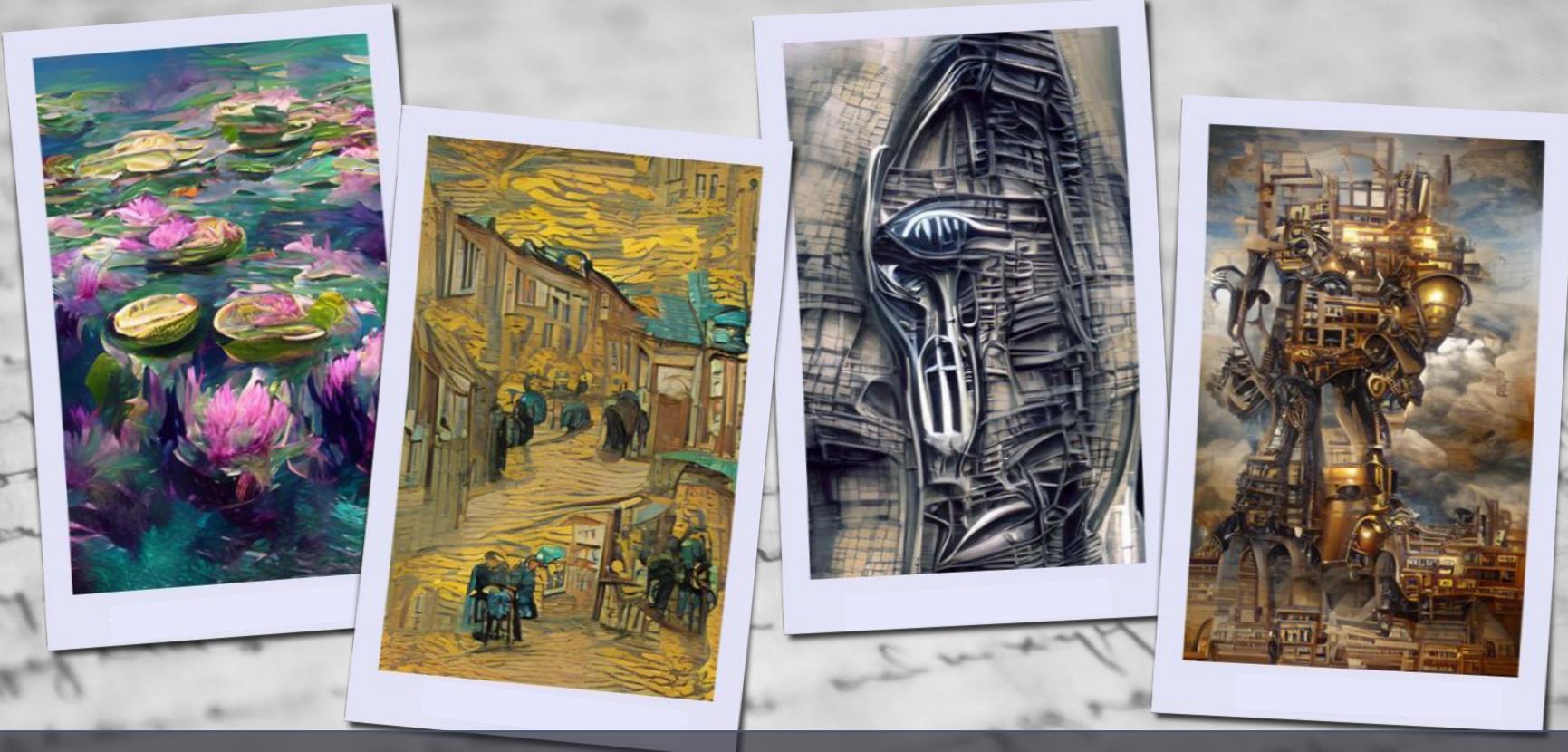
Chat Bot (Korean): Version 4?



Key Takeaways

- Connect your app to many APIs, not just one!
- Interfaces: Try to use existing ones that people are familiar with already?
- Innovate fast and iterate!

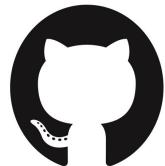




<https://apigeek.net/art>

Your Turn!

- **Check out:**
<https://bit.ly/uliai>
- **LinkedIn:** Let's connect
- **Try it out:** How can AI help you today?



/u1i

