Building a bot using Python3

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Introduction

Oleg Fiksel

- Passionate about tech
- Like to automate everything
- Several years with Matrix
- NEW contributor to Opsdroid
What is Matrix?
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Matrix is an open network for secure, decentralized, real-time communication.
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- Matrix is commonly used as a chat network
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Matrix is an open network for secure, decentralized, real-time communication.

- Matrix is commonly used as a chat network
- There is a great concept of Bridges
Bots in Matrix
Bots in Matrix

• In Matrix there is no difference between a bot and a real user
Bots in Matrix

- In Matrix there is no difference between a bot and a real user
- Howto
  - Create a user
  - Get an access token (or username/password)
  - Connect
Bot frameworks

A incomplete list of bot frameworks (and bots):

- **Opsdroid** (Python)
- **Maubot** (Python)
- **matrix-bot-sdk** (TypeScript/JavaScript)
- **Simple-Matrix-Bot-Lib** (Python)
- **Hemppa** (Python)
- **Go-NEB** (Go)
- **matrix-rust-sdk** (Rust)
  - **MRSBFH** (Rust)
  - **hebbot** (Rust)
Designed to take messages from chat services and execute Python functions (skills) based on their contents.
Event flow

Chat Client
The client you use to speak to the bot

External Event
External event sources such as webhooks or cron timings

3rd Party Inference
EAI APIs used to add additional information to the event e.g. intent matching and sentiment

Connector
Receive and send events

Parser
Add context and meaning

Matcher
Determine which skill(s) should be triggered

Skills
Take action on event and optionally respond
Demo time!
Thanks!

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Links

- Code used in the demo
- Opsdroid Matrix channel
- Opsdroid Rasa parser documentation
- E2EE with Matrix in opsdroid
- Opsdroid Rasa 2.0 support
- Opsdroid hello skill