



# Backend RoadMap

```
learn a high and low level language (Rust and Python)
- basic (syntax)
- mid (syntax comprehension)
- adv (oop concepts)
protocols concepts
- socket (ip, port, packets)
- http protocol and server(request and response object content)
- API
- middelwares
- authorization algorithms
- MVC/MVT pattern
- websocket protocol
- realtining and push notifications
- multithreading concepts
  - events
  - topics
  - pubsub channels like zmq and redis
  - async future io object stream handlers
    - redis streams
    - spawn workers
    - arc and mutex
    - select event loop
    - jobq channels
  - actors
    - mailbox
    - message passing between other actors using pubsub patterns
    - message queue using jobq channels
    - event loop handler
    - message scheduling
      - actor.run_interval()
      - tokio::time
      - tokio crontab
data storage concepts
- postgres db
- mongo db
- redis
- ORM models and schemas and serializers
cryptography concetps
- hasing and KDF algorithms like SHA, argon2 (seeds and entropy)
- public key digital signatures algorithms like ED25519 and ECDSA curves
- tools like pgp and openssl
devops concepts
- VPS setup
- reverse proxy and load balancing (nginx)
- docker
low level concepts
- vm
- graph alorithms and concepts
- decompiling and decrypting
tools
- django
- django rest framework
- Actix web
- Tokio
```