Halil Tezcan KARABULUT

Software Developer

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Profile

I'm a Fullstack Web Developer and a DevOps Enthusiast. Into sci-fi and trying to make the technologies that I see in the movies real. Also interested in networking, data and IoT.

Languages

English   Turkish

Skills

Go   TypeScript   NestJS   Express   Fastify   GraphQL

PostgreSQL   MongoDB   Redis   Terraform   Docker   Kubernetes

Micro-Services   RabbitMQ & NATS

Projects

Word Cloud
A micro-service web application which takes a text file as an input and creates a counting job using map-reduce algorithm. Afterwards, that job starts being managed by a master and the master distributes the job(s) between multiple EC2 instances while auto-scaling them when required. The services count all the words while excluding common words (like and, or, may...). As a result it saves most used 50 words in ElastiCache. When you go to artifacts page in browser, the API responds with that 50 words and their frequency and browser renders a word cloud using canvas. In this word cloud, words appear by their frequency in the input text. It works async so it can process multiple jobs at the same time at low cost. However, if I used Fargate project could be more scalable.

Assisky ⧉
A tool for translating speech-to-text in a channel of a Discord server using Vosk & ffmpeg. Very useful for making assistant Discord bots.

Middlewar (WIP)
A cloud project just like Google Cloud, AWS, DigitalOcean which people can get VMs, containers, databases, object storages and etc. This is the biggest project I'm ever making alone.

Cyphria
As we know, in todays world data is the most valuable thing for companies and us. They can easily get exposed when they are not hidden. There are ways to hide your data from them though, like encrypting them. There are too many encryption algorithms and I wanted to try how hard could it be to make one. I made a very simple algorithm; that takes a key, makes simple mutations (like flipping bits, reverting bytes) on the data to increase the cost of brute-forcing. In between these mutations, it also orders the data by looking at the key. It doesn't add any headers or validators, so when you brute-force you never know when you succeed. There are also some example tools I made with it like a password manager but this algorithm is probably very insecure.

Name Generator ⬈
We wasted so much time about finding a name which is not taken. So we decided to make an open source tool that creates creative (weird) names for us. It will also check if the domain is not taken in the future.

Golden God
A Minecraft bot that can help you in-game. It can fight, build, explore, path-find, mine and etc. Made it using JS and mineflayer library.

Redoya Pay ⬈
An easy to use payment gateway made for game server owners to sell in game items online. Uses PayTR integration to process payments and prepares payment page in the background with no back-end requests.

Herd Monitoring
A powerful desktop application to monitor herd in a factory. List all of the details of your animals. Filter them, edit them, get warned when they are near birth or when they needs to get vaccinated. Deployed on AWS using Lambda, CloudFront and RDS made with NestJS, Prisma, GraphQL and Vue, Vuesax, Electron, ApolloJS.

Clipwatch ⬈
A basic clipboard watcher made with xclip. I needed to access the clipboard history sometimes and I use AwesomeWM. So made a basic bash script.