

李易的應用程式 LeeYi's application program

著作人 李易 2023 年
The author LeeYi in 2023



陽春版的免費試用說明

1. 首先下載李易的視訊通話網址：

<https://leeyi-call.deno.dev/>

2. 照會通訊對象開機點選。

Yangchun version free trial instructions

1. First, download LeeYi's video call URL:

<https://leeyi-call.deno.dev/>

2. Inform the communication target to open the camera and click on call.

【1】

李易的視訊通話 · LeeYi's video call

LeeYi-user change title	
📁 .vscode	add chat
📁 components	add selecting system to video call
📁 islands	add selecting system to video call
📁 routes	change title
📁 static	change favicon
📄 .env.example	Initial commit
📄 .gitattributes	Initial commit
📄 .gitignore	Initial commit
📄 LICENSE	Initial commit
📄 README.md	Initial commit
📄 deno.json	add chat
📄 dev.ts	Initial commit
📄 fresh.gen.ts	remake signaling server
📄 import_map.json	Initial commit
📄 main.ts	Initial commit
📄 twind.config.ts	Initial commit

李易的程式文章

LeeYi's programming article

李易的視訊通話，程式文章又多又長……

LeeYi's video call,
program articles are long and numerous...

所以僅編輯截取文章的片段，謹供學弟妹們免費參考。

So only edit the clip of the article,
and I would like to give the students and siblings to
reference for free.

```
LeeYi-user change title ✓  
1 contributor  
22 lines (19 sloc) | 611 Bytes  
1 import { HandlerContext, PageProps } from "$fresh/server.ts";  
2 import { Head } from "$fresh/runtime.ts";  
3 import CallArea from "../islands/CallArea.tsx";  
4  
5 export async function handler(_req: Request, ctx: HandlerContext) {  
6     const id = Math.random().toString(36).substring(2, 9);  
7     return await ctx.render(id);  
8 }  
9  
10 export default function Call({ url, data }: PageProps) {  
11     return (  
12         <>  
13         <Head>  
14             <title>李易的視訊通話</title>
```



LeeYi-user add selecting system to video call ✓

1 contributor

87 lines (75 sloc) | 1.84 KB

```
1  const clients = new Map<WebSocket, string>();
2  const calling = new Map<string, WebSocket>();
3
4  // deno-lint-ignore no-explicit-any
5  function broadcast(socket: WebSocket, body: any)
6  {
7      if (body.type === "join" || body.type === "left")
8      {
9          if (body.type === "join")
10         {
11             clients.set(socket, body.id);
12         }
13         else
14         {
15             clients.delete(socket);
16         }
17
18         const temp = [];
19
20         for (const [_socket, id] of clients)
21         {
22             temp.push(id);
23         }
24
25         body.data = temp;
26
27         for (const [socket, _id] of clients)
```

```
64  export function handler(req: Request) {
65      const { socket, response } = Deno.upgradeWebSocket(req);
66
67      socket.onmessage = (event) =>
68      {
```



LeeYi-user add selecting system to video call ✓

1 contributor

245 lines (201 sloc) | 7.02 KB

```
1 import { useState, useEffect, useRef, useCallback } from "preact/hooks";
2 import { Button } from "../components/Button.tsx";
3 import { Select } from "../components/Select.tsx";
4
5 export default function CallArea({ id }: { "id": string })
6 {
7     const ICE_SERVERS: RTCConfiguration =
8     {
9         iceServers: [
10             {
11                 urls: ["stun:stun1.1.google.com:19302", "stun:stun2.1.google
12             }],
13             iceCandidatePoolSize: 10
14         };
15
16     const [localStream, setLocalStream] = useState<MediaStream | null>(null);
17     const [remoteStream, setRemoteStream] = useState<MediaStream | null>(null);
18     const [pc, setPc] = useState<RTCPeerConnection>();
19     const [socket, setSocket] = useState<WebSocket | null>(null);
20     const [disableCall, setDisableCall] = useState<boolean>(true);
21     const [peers, setPeers] = useState<string[]>([]);
22     const [target, setTarget] = useState<string>("Random");
23     const [calling, setCalling] = useState<boolean>(false);
24     const localVideo = useRef<HTMLVideoElement>(null);
25     const remoteVideo = useRef<HTMLVideoElement>(null);
26     const callButton = useRef<HTMLButtonElement>(null);
```

```
76     const offerDescription = await pc?.createOffer();
77     await pc?.setLocalDescription(offerDescription);
78
79     console.log("set local description");
80
81     const offer =
```

【5】

```

100     if (!localStream)
101     {
102         return;
103     }
104
105     localStream.getTracks().forEach((track) =>
106     {
107         pc?.addTrack(track, localStream);
108     });
109
110     pc!.ontrack = (event) =>
111     {
112         event.streams[0].getTracks().forEach((track) =>
113         {
114             remoteStream?.addTrack(track);
115         });
116     };
117
118     localVideo.current!.srcObject = localStream;
119     remoteVideo.current!.srcObject = remoteStream;
120
121     const protocol = (location.protocol === "http:") ? "ws:" : "wss:";
122     const socket = new WebSocket(`${ protocol }//${ location.host }/a
123
124     socket.onopen = () =>
125     {
126         socket.send(JSON.stringify(
127         {
128             "id": id,
129             "type": "join"
130         }));
131
132         setDisableCall(false);
133     };
134
135     socket.onmessage = async (event) =>

```

```

162         const offerDescription = new RTCSessionDescription(body.data
163         pc?.setRemoteDescription(offerDescription);
164
165         console.log("set remote description")

```

```

188         else if (body.type === "answer")
189         {
190             console.log("receive answer");
191
192             const answerDescription = new RTCSessionDescription(body);
193             pc?.setRemoteDescription(answerDescription);
194
195             console.log("set remote description");
196         }
197         else if (body.type === "candidate" && body.data)
198         {
199             console.log("receive candidate");
200
201             const candidate = new RTCIceCandidate(body.data);
202             pc?.addIceCandidate(candidate);
203
204             console.log("add candidate");

```

```

211     return (
212         <div>
213             Your ID: { id }
214
215             <div class="mt-1">
216                 <video class="border border-black" ref={ localVideo } autoP
217             </div>
218
219             <div class="mt-1">
220                 <video class="border border-black" ref={ remoteVideo } auto
221             </div>
222
223             { calling ? null :
224                 <div class="mt-1">
225                     <Select onChange={ (event) => setTarget((event.target a
226                         <option>Random</option>
227                     {
228                         peers.map((peer) =>
229                             {
230                                 if (peer !== id)
231                                 {
232                                     return (
233                                         <option>{ peer }</option>

```

李易的視訊通話 · LeeYi's video call

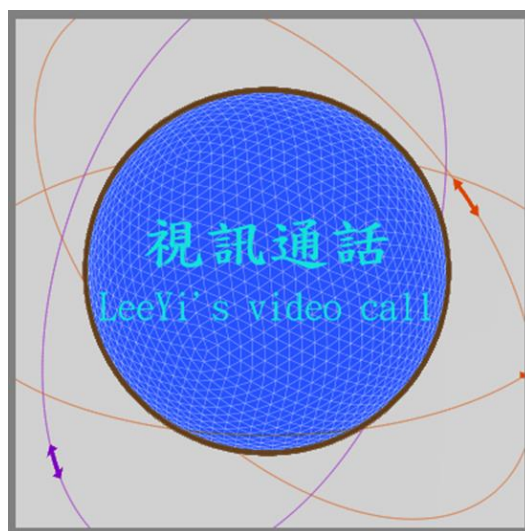
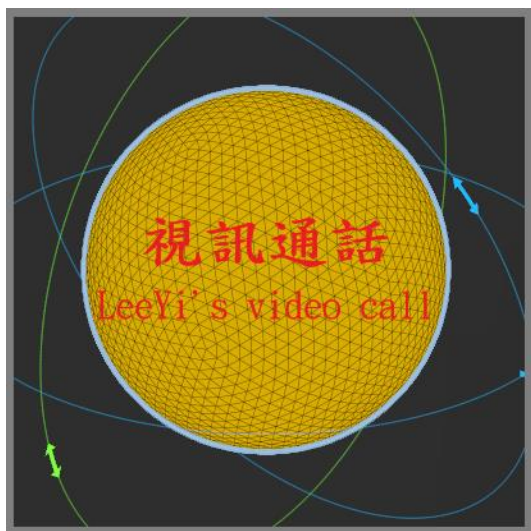
著作人 李易 2023 年
The author LeeYi in 2023

2023 年，李易寒假苦究，搞出陽春版的視訊通話。
李易多次測試通過驗證。雖然只是一對一版，但是李易還想再進階，再搞個一對多的，或更多功能……
總之的，學如逆水行舟，不進則退。

In 2023, LeeYi hard studying at winter vacation, make out a Yanchun version of video call.

LeeYi has passed the verification many times. Although it is only one-to-one version, LeeYi still wants to advance again and make one-to-many version of it, or more functions...

In sum, study is like a boat sailing against the current, sink or swim.



標誌設計人 · 李易的老爸 2023 年
Logo designer · LeeYi's old dad in 2023.