



##### H5



## URL



- [REDACTED]
  - OCR [REDACTED] (Tesseract)
  - [REDACTED] (MediaPipe)



## ■■■ FRONTEND LAYER (■■■)



## React Frontend

**URL:**

<https://low-back-pain-system.onrender.com>

 Render (Static Site)

• Vite

■■■■■: ■■■■■ (VITE\_DISABLE\_AUTH=true)

• UPI



## ■■■■■ BACKEND LAYER (■■■■■)

### .NET Backend API

URL:

<https://low-back-pain-backend.onrender.com>

Swagger API:

</swagger>

■■■■■: Render (Web Service - Docker)

■■■■■: ASP.NET Core 7.0 + ABP vNext 7.3

ASP.NET Core 7.0 ABP vNext 7.3 Entity Framework ■ Live



## ■ DATABASE LAYER (■■■■■)

### PostgreSQL Database

■■■■■: Render (PostgreSQL Service)

■■■■■: LowBackPainDB

■■: ■■■■■■■■■■

■■: ■■■■■ (Render)

PostgreSQL 15 Relational DB ■ Live



## ■ PYTHON SERVICES LAYER (Python■■■■)



## OCR Service

URL:

<https://lowbackpain-ocr-service.onrender.com>

Endpoint:

/health

OCR Engine: Tesseract 5.5.0

Version: 1.0.0

Python 3.10 Flask Tesseract OCR OpenCV Live



## MediaPipe Service

URL:

<https://lowbackpain-mediapipe-service.onrender.com>

Endpoint:

/health

Model: MediaPipe Pose (Complexity 2)

Version: 3.3.0

Python 3.10 Flask MediaPipe 0.10.18 OpenCV Live

## GitHub

```
low-back-pain-system/.git/.specify/ # (19MD) _archive/ # demo/ old-backend/ old-docs/ old-frontend/ old-scripts/ reference-materials/ test-data/ # (NEW) images/test_images/ # 6 temp/ # backend-dotnet/ # .NET aspnet-core/ Dockerfile README.md docs/ # architecture/ reports/ # (NEW) architecture_report.html status-report.html swagger-ui-screenshot.png README.md python-services/ # Python (OCR & MediaPipe) mediapipe-service/ Dockerfile pose_service.py requirements_pose.txt ocr-service/ Dockerfile ocr_service.py requirements_ocr.txt reference/ # PDF scripts/ # data-generation/ setup/ testing/ # (REORGANIZED) backend/ # test-db.ps1 test-postgres-passwords.ps1 frontend/ # capture-swagger.js test-system.cjs test_mediapipe.py src/ # api/ components/ contexts/ AuthContext.jsx # ExternalContext.jsx # pages/ App.jsx # # (16) .env.development .env.local .env.production .gitignore package.json vite.config.js ...
```



URL

**React Frontend**



Render Static Site



**.NET Backend**

RESTful API

Render Web Service



**PostgreSQL**



Render PostgreSQL



**OCR Service**

Python

Render Web Service



**MediaPipe Service**

Python

Render Web Service



[React 18](#) [Vite](#) [React Router](#) [Tailwind CSS](#) [Shadcn/ui](#) [Lucide Icons](#)



[ASP.NET Core 7.0](#) [ABP](#) [vNext 7.3](#) [Entity Framework](#) [AutoMapper](#) [Swagger/OpenAPI](#)

**AI/ML**



[Python 3.10](#) [Flask](#) [Tesseract](#) [OCR](#) [MediaPipe](#) [OpenCV](#) [NumPy](#)



[Docker](#) [PostgreSQL](#) [15](#) [Render](#) [Cloud](#) [GitHub](#) [Git](#)



             : Render (   Free Tier)

 Python Docker

 GitHub

■■■: 512MB RAM, ■GPU, ■■15■■■■■

██████████ (VITE\_DISABLE\_AUTH=true) ██████████

URL (workspace\_id, doctor\_id)

Low Back Pain Data Collection System

Department of Orthopaedics & Traumatology

The University of Hong Kong

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