# Jongwook Whangbo

♥ Brooklyn, NY 

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#### WORK EXPERIENCE

## Research Assistant | Gachon University | South Korea | May 2023 - September 2023

- Developed and trained deep learning models for segmentation and classification.
- Published two peer-reviewed scientific papers based on the trained models: segmenting sinusitis from CT scans, classifying endometrial cancer from digital pathology slides.

#### Intern | Naver | South Korea | May 2022 - August 2023

- · Organized and maintained IT assets for the company
- Responsible for initializing and testing security and company specific software on newly acquired IT assets

# Senior Airman | Republic of Korea Air Force | South Korea | June 2020 - December 2021

- · Responsible for maintaining and operating ground vehicles
- · Training and mentoring of new recruits

#### **EDUCATION**

## Bachelor of Science in Computer Science | Wesleyan University | Middletown, CT | 2023

- COMP333: Software Engineering
- COMP360: Information Security and Privacy
- COMP360A: Automated Reasoning
- · COMP312: Algorithms and Complexity
- · COMP321: Design of Programming Languages
- · COMP301: Automata Theory & Formal Languages

# **PROJECTS**

## comp333-mobile: A native mobile application based on comp333-MVC

Oct, 2023

- Developed based on a RESTful API, with the backend developed using PHP, and frontend using React-native.
- The same backend was used as comp333-MVC
- Application was published on google play store as closed beta.

### comp333-MVC: An improved version of Laravel-demo made into a client-side application

Oct, 2023

- Developed based on a RESTful API, with the backend developed using PHP, and frontend using React.
- The backend is based on the MVC(Model View Controller) architecture.
- Backend deployed on AWS using EC2 Linux server on a docker container.

## Laravel-demo: A simple music rating website created using Laravel, a full stack framework for PHP.

Oct, 2023

• Developed using PHP, Javascript, TailwindCSS.

## Jwwhangbo.com: Personal website project.

May, 2024

- Developed using Javascript, TailwindCSS in Nextjs.
- Automatically builds frontend elements based on json files
- Integrated SMTP server to handle email sending.

#### CookGPT: AI-based cooking assistant (work in progress)

Oct, 2024~

- Developed using Nextis
- Makes use of the openai API, and elasticsearch to recommend recipes and tips based on user's cooking skill, dietary/food preferences, and ingredient
  availability
- Plan to host on VPS with docker. Will also implement load balancing and CI/CD using traefik and watchtower, respectively.
- Will use Cloudflare for DNS and CDN along with google analytics as 3<sup>rd</sup> party services.

# **SKILLS**

Programming Languages: Python, C, C#, Javascript, PHP, SML(Standard ML) Frameworks: nodeJS, expressJS, react, Laravel, TailwindCSS, react-native, Nextjs

Data: MySQL, MongoDB, SQlite

Deployment: Linux server, AWS, Docker

**PUBLICATIONS** 

Predicting Mismatch Repair Deficiency Status in Endometrial Cancer through Multi-Resolution Ensemble Learning in Digital Pathology

Springer

Whangbo, J., Lee, Y.S., Kim, Y.J. et al.

Doi: https://doi.org/10.1007/s10278-024-00997-z

Deep Learning-Based Multi-Class Segmentation of the Paranasal Sinuses of Sinusitis Patients Based on Computed Tomographic Images

MDPI

Whangbo, J., Lee, Y.J. et al.

Doi: https://doi.org/10.3390/s24061933