# YIXIONG  YUAN

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## Summary

Graduated student with master degree of computer engineering pursuing a full-time software engineer position. One year internship experience about the development of deep learning software and the deployment of image detection model. Independently built several Java full stack web applications with modern prevail frameworks.

## Skills

- Programming Language : Java, JavaScript, TypeScript, SQL, Python, C++, HTML/CSS
- Framework & Tools : SpringBoot, React, Angular, Mybatis, Linux, AWS, Git, Docker, PyTorch

## Education

**New York University Tandon School of Engineering**                                            Brooklyn, NY
*Master of Science in Computer Engineering*                                                Sep. 2021 – May. 2023
- **Overall GPA:** 3.85 / 4.0
- **Relevant Course:** Internet Architecture and Protocol | Network Design and Algorithms | Deep Learning

**Sichuan University**                                                                    Chengdu, China
*Bachelor of Engineering in Computer Science and Technology*                                 Sep. 2016 – May. 2020
- **Overall GPA:** 3.45 / 4.0
- **Relevant Course:** Data Structure and Algorithm | Operating System | Database System | Intro to Java

## Experience

**Shenzhen Extreme Vision Technology Co., Ltd**                                            Shenzhen, China
*Algorithm Intern*                                                                        Oct. 2020 – Jul. 2021
- Developed detection software installed at two Qingdao subway stations for package inspection. Deployed the **YOLO-v5** model with OpenVino, resulting in accuracy improvement from 82% to **91%**.
- Applied modifications to the **C++** backend logic of the system, successfully resolving the issue of auto detection box movement, text overlapping, multithread control and image video streaming.
- Implemented deep learning production pipeline process : Trained and Deployed ResNet, darknet models by PyTorch / ONNX / TensorRT for cpu device inference. Then integrated models into **Docker** images.
- Analyzed and processed the monitoring video from cooperated factories and designed defect detection solution using classification and recognition models for intelligent dangerous situation supervision.

## Projects

**Full Stack Web Project : Library Manage System**
- Developed the web application with **React Typescript** front-end and **Spring Boot** back-end integration.
- Employed MySQL as the database to handle book data, user information and transaction records.
- Integrated Okta authentication to ensure secure access to the application and safe login experience.
- Realized customer credit card payment function under PCI compliance by implementing **Stripe** API.
- Deployed the application on an **AWS** server and Hosted the web application using **Firebase.**

**JAVA Web Development : Movie Reviewing System**
- Designed front-end pages displaying content and performed UI using HTML / CSS / JSP / JSTL
- Learned the developed the backend logic under **Spring MVC** Framework with Restful web services
- Fulfilled the data CRUD interaction between front-end and back-end by implementing Restful API
- Demonstrated expertise in Deploying the project on **AWS EC2** instance with Tomcat as the web server

**Semantic Segmentation Task of Tooth Image**
- Developed an application for precisely cropping the outline of teeth which is used in orthognathic surgery
- Constructed the dataset by labeling CBCT photos then completed the training on FASTAI under **Linux**.
- Improved the classical U-net model by replacing the down-sampling procedure with a pretrained CNN classification model, and finally got **92%** accuracy.