Zhengyan Lyu

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PROFILE:

Computer science major at Villanova University.   Seeking a summer internship software engineering opportunity prior to attending graduate school in Fall 2020.   Experience in **machine learning** and **back-end** development. Strong data structure and algorithm skills.

EDUCATION:

Villanova University, Villanova, PA   May 2020

- Bachelor of Science in Computer Science   Minor: Mathematics
- Coursework: Deep Learning, Database Systems, Advanced Algorithms, Linear Algebra
- Major GPA:3.83; Overall GPA: 3.60

SKILLS:

- **Programming languages:** Familiar with **Java, Python.** Experience with Oracle SQL, Object Pascal, Html, CSS, JavaScript, C
- **Technical skills**: **Git**, **Linux**, **Pytorch**, Scikit-learn
- **Languages:** Native in Chinese, Intermediate in Japanese

PROJECT AND RESEARCH EXPERIENCE:

Computer Vision Deep Learning Undergraduate Research Assistant, *Villanova, PA*   May 2019-Present

- Constructed an Object detection model based on Faster R-CNN model in **Python** with **Pytorch** library
- Preprocessed training images by data augmentation, rescaling and normalization
- Implemented the model on specific weapon datasets by transfer learning and fine-tuning

Java Software Engineering Final Project, *Villanova, PA*   March 2019-May 2019

- Designed and created a music generation application in **Java** in a group of four with **Agile** methodology
- Created a rule-based generation algorithm to generate music based on the preference and random seed inputted by the user

Webpage Data Inquiry System Project, *Villanova, PA*   September 2018-December 2018

- Designed login and search user interfaces for both administrator and visitors in **HTML/CSS** and **JavaScript**
- Stored data and **hashed** user passwords with **MySQL** relational database system using phpMyAdmin administration tool
- Proceeded with query and edition requests from the webpage with **PHP** on the server
- Edited all code on **Linux** Raspberry Pi remotely and ran **Apache** HTTP Server

Recommendation System Machine learning Final Project, *Villanova, PA*   September 2018-December 2018

- Built a restaurant recommendation system with **Scikit-learn** using Yelp dataset
- Combined both supervised learning based on past experience of similar users and unsupervised learning based on the attributes of restaurants.
- Designed a user interface for customized parameter input in Html and JavaScript

ACTIVITIES:

Programming Team, Villanova, PA   September 2017-Present

- **15th** place in **ICPC** Mid-Atlantic Region 2019, **2nd** place on Wilkes University site
- Worked in a group of three to solve eight problems using one computer in five hours
- Attended weekly meeting as one of the leaders and assigned and completed weekly assignment on Kattis

Special Olympic Volunteer, Villanova, PA

Day of Service Volunteer, Villanova, PA