# Zhengyan Lyu

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# **EDUCATION:**

#### Brown University, Providence, RI

- Science Master in Computer Science
- Coursework: Learning with limited labeled data, Special Topics in Computational Linguistics

## Villanova University, Villanova, PA

August 2017-May 2020

Expected: May 2022

- Bachelor of Science in Computer Science Minor: Mathematics
- Coursework: Database Systems, Advanced Algorithms, Deep Learning, Linear Algebra, Computer System, Programming Languages, Theory of Computability, Software Engineering
- Major GPA:3.84; Overall GPA: 3.63

### **SKILLS:**

- **Programming languages:** Familiar with **Python** (3 years+), **Java** (3 years+), **JavaScript** (2 years+). Experience with Oracle SQL, Delphi, Html, CSS, Lisp
- Technical skills: Git, Linux, Vue.js, Pytorch, Node.js, Scikit-learn, SVN
- Languages: Native in Chinese, Intermediate in Japanese

#### **EXPERIENCE:**

## Shengqu Gaming Software Engineering Internship, Shanghai

June 2020-present

- Independently developed both front end and back end of game master systems for two mobile games
- HTML/CSS and JavaScript with Vue.js 2.0 framework at front end, Node.js framework at back end, MongoDB for database management system
- Refactored part of the code base with **Vue Router** and **ViewUI** toolkit and packaged **Vue** components to replace old duplicated code for better code readability and modifiability

#### Computer Vision Research Assistant, Villanova, PA

May 2019-August 2019

- Constructed a weapon detection model based on Faster R-CNN model in **Python** with **Pytorch** library
- Implemented the model on preprocessed weapon datasets by transfer learning and fine-tuning
- Presented the poster with the 95% accuracy model at Villanova University in September 2019

## **PROJECT:**

# Music Generator Project, Villanova, PA

March 2019-May 2019

- Designed and created a music generation application that allows user to generate music based on their preference parameters and random seeds in **Java**
- Worked in a group of four with Agile/Scrum methodology and Git version control system

## Webpage Data Inquiry System, Villanova, PA

September 2018-December 2018

- Designed login and search user interfaces in HTML/CSS and JavaScript
- Stored data with MySQL relational database system using phpMyAdmin administration tool
- Edited all code on Linux Raspberry Pi remotely and ran Apache HTTP Server

# Machine learning Recommendation System, Villanova, PA

September 2018-December 2018

- Built a restaurant recommendation system with in 8 cities with Scikit-learn using Yelp dataset
- Combined both supervised learning (Random forest/Decision Trees/SVM) based on past experience of similar users and unsupervised learning (Clusterings) based on the attributes of restaurants.
- Designed a user interface for customized parameter input in Html and JavaScript

# **CONTESTS AND ACTIVITIES:**

#### **Programming Contest Team**, Villanova, PA

September 2017-May 2020

- 15<sup>th</sup> place in ICPC Mid-Atlantic Region 2019, 2<sup>nd</sup> place on Wilkes University site
- Hosted internal programming contest and presented solutions to team members in meeting every week