Wenkai **Pan**

Machine Learning · Natural Language Processing

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Education

University of Washington — *Seattle, WA*

B.S. in Mathematics — *Sept. 2018 - Current*

- Overall GPA: 3.54
- Dean's List 2018 - 2019
- Research Interests: Machine Learning, Natural Language Processing, Robotics
- **Selected coursework:**
  - **CSE 546** Machine Learning
  - **CSE 547** Machine Learning for Big Data

Research Experiences

Human-centered Robotics Lab, University of Washington — *Seattle, WA*

Undergraduate Research Assistant — *June 2020 - Current*

- Advisor: **Maru Cabrera**.
- Group link: https://hcrlab.cs.washington.edu.
- Currently working with RoboCup@Home Open Platform League Team.
- Currently working on machine learning task to build a robotic system which can autonomously perform a series of tasks in the home environment.

Personal Robotics Lab, University of Washington — *Seattle, WA*

Undergraduate Research Assistant — *June 2020 - Current*

- Advisor: **Rosario Scalise**.
- Group link: https://personalrobotics.cs.washington.edu.
- Currently working on Multitask Unsupervised Learning Project, using pytorch + the PyRoMID framework to develop a training pipeline for robotics-oriented mulitask unsupervised learning problems.

Industry Experiences

Hundsun Technologies Inc. — *Hangzhou, China*

Software Development Intern — *July 2019 - Aug. 2019*

- Write, test and deploy financial apps providing services for other firms.
- Built an app used for reporting the stock market trend and predicting the future behaviors.

E.T. Logistics Laboratory, Alibaba Group — *Hangzhou, China*

Research Intern — *Aug. 2019 - Sept. 2019*

- Read related research paper on machine learning algorithms.
- Study Linux and Robot Operating System(ROS) command line tools.

Skills

Programming Languages	Python, Java, JavaScript, PHP, MATLAB, R, SAS, SQL, LaTeX.
Tools and Frameworks	PyTorch, Git, LXC, VueJS, Flask, Spark.
Skills	Object-Oriented Programming, Web Development

Selected Projects

Identifying Feeding Strategies with Unsupervised Learning — *Class Project*

Work Done in CSE547 Machine Learning For Big Data — *Mar. 2020 - June 2020*

- Facilitate autonomous robotic feeding.
- Cluster foods into clusters based on sensor data collected from a fork during human feeding trials. Find that the hardness of a food and whether a food is curved are the main factors that determine the feeding strategy used for the foods examined.

Analysis of criminal situation in Chicago from 2001-2019

Class Project

Work Done in CSE163 Intermediate Data Programming

Apr. 2019 - June 2019

- Use different kinds of data science libraries to analyze the crime data set in Chicago.
- Predict the possibility of the criminal being arrested at a given time of a day and a given criminal type.
- Find the ranking of safety of different areas of Chicago.
- Find out how the rate of solved case affect the crime rate.
- Find out how the poverty rate, unemployment rate, educational level and age distribution among people affect the crime rate in a particular community area during a specific period of time.

My Beloved Leader: a game about immigration

Class Project

Work Done in CSE190 Game Design for Problem-Solving With Python

Aug. 2018 - Sept. 2018

- Built a single player role playing game so that players can have fun playing while learning the rules of immigration at the same time.

Extracurricular Activity

DubsTech, University of Washington

Seattle, WA

Club Member

Sept. 2018 - Current

- Attend various workshops teaching programming tools and frameworks.
- Attend the Full Stack Web Development Program. Acquire the materials from backend to frontend at a fast pace and deploy a chat app.