# Wang, Zian

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### EDUCATIONAL BACKGROUND

## School of Computing and Information, University of Pittsburgh

01/2021-Present

Major: Information Science
Degree: Master's Degree
Current GPA: 3.977/4.0

## School of Artificial Intelligence, Hebei University of Technology

09/2016-06/2020

• Major: Computer Science and Technology

Degree: Bachelor's DegreeOverall GPA: 3.43/4.0

• Second Major: Information and Computing Science

## RESEARCH EXPERIENCES

## Construction of a Conspiracy Theory Related Posts Database

06/2022-Present

- Collect posts from telegram and 4chan website and pick out the posts related to conspiracy theories.
- Trying to understand people's discussions about the anti-vaccine, white supremacy, and great replacement topics during the pandemic.

## **Bayesian Optimization Review**

12/2021-Present

- Review basic concepts of Bayesian optimization.
- Apply Bayesian optimization to benchmark functions from one dimension to multiple dimensions, and from unimodal to multimodal.
- Test the influence of different acquisition functions and other factors involved.

## **Tweets Sentiment Analysis**

12/2021-05/2022

- Analyze and classify the tweets based on sentiments.
- Use and compare many embedding methods and many models.
- Finally use modified GRU and LSTM DNN as the best two models to do classification, the accuracy can reach 78% compared to 55% in many related works.

#### **Police Union Contract Misconduct Complaint Detection**

09/2021-01/2022

- Detect unfair misconduct terms in the police union contracts.
- Removing errors, preprocessing, embedding, and building several models, includes Random Forest, Neural network, LogitBoost, SLDA, and SVM.
- Use ensemble to improve performance of our system, recall up to 98% can be achieved.

#### **CAASI Allegheny County Policing Project**

08/2021-01/2022

- A project that aims to make police contracts more transparent to the people.
- Working as a technique team member in Dr Yuru Lin's PICSO lab of the University of Pittsburgh, responsible for building the police dept map, and display the data.
- Gained full-stack development experience.

## **Complex System Performance Prediction**

01/2021-05/2021

- A project to predict the performance of a complex system in the industrial domain.
- Build several regression and classification machine learning models to predict the performance and to optimize the system to have minimal probability of failure.
- Include preprocessing, training, testing, optimizing steps.

# A Steel Price Analysis System based on Data Visualization (Graduation Project)

01/2020-05/2020

- Design, code, test, and complete independently throughout the process
- Crawl the necessary price data from public websites
- Build and use ARIMA model to analyze and predict the prices of steel in a short period of time in the future

## **BIM-based Intelligent Building Cloud Platform**

11/2017-06/2018

- Participated in the design of database and the construction of database architecture
- Responsible for the preparation of data presentation page and other technical work

• Collected the data required by the project and checked and processed the project data

## Visual Analysis of Global Game Sales Data from the 1980s to the Present

05/2019-06/2019

- Conducted visual analysis of the sales data of global top five game manufacturers in each year by using Tableau
- Gained information about the changes in top five game manufacturers in the world and the changes in sales data of vendors

#### **INTERNSHIP**

### **Aurora Mobile Limited, Shenzhen, Guangdong** | Basic Data Department Intern

07/2019-08/2019

- Responsible for updating the app information with no tags in the Hive library, tagging them and putting them into storage
- Learned the cutting-edge technology of data mining and big data analysis
- Got a better understanding of how to mine the wanted data in the data warehouse and how to classify it

## EXTRACURRICULAR ACTIVITIES

## **Volunteer Activities**

Member of Volunteers Association for Rare Diseases in Hebei University of Technology 09/2016-09/2017

- Accompanied the children with rare diseases in the ward
- Responsible for the making of publicity materials of the association

#### Summer Social Practice in the Old People's Home and Microsoft Game Innovation Center

07/2017

- Visited local villages, accompanied old people in recreational activities in Chongli County, Zhangjiakou, Hebei and investigated local government policies and the impact of the 2022 Winter Olympics on local production and life
- Visited the Microsoft exhibition area, communicated with the staff on the innovative methods and learned their innovation and entrepreneurship experiences in the business salon activities

## **Campus Activities**

## Director of Sports Department in the Student Union

09/2016-09/2018

- Guided department members to organize the Basketball Game and Brisk Walking activity
- Engaged in schedule and venue arrangement of School Sports Meeting and University Sports Meeting and organized athletes to participate in the competitions in time and the spectators to watch the games

### Lecturer on Computer Knowledge in Computer Network Association

09/2016

• Explained computer hardware, computer assembly and computer purchasing knowledge for students attending the lecture and answered related questions

#### **HONORS & AWARDS**

Second Prize in the National College Students E-Commerce Innovation, Creativity and Entrepreneurship Challenge 10/2018

Third Prize in "Internet" College Students Innovation and Entrepreneurship Competition 10/2018 Second Prize in "Creating Youth" National College Student Entrepreneurship Competition 10/2018

Group Special Award in Hebei University Student E-Commerce Innovation, Creativity and Entrepreneurship

04/2018

# Championship of Youth Go Match in Shijiazhuang, Hebei

10/2012

# **OTHERS**

Language Skills: Chinese (native), English (CET-4, CET-6, TOEFL 98, GRE 320)

**Programming Skills:** Most often use Java, Python, and R. Familiar with SQL, Matlab, C and C++. Built

websites with Django+React. Have experience with hadoop(Code MapReduce programs).

**Certificate:** National Computer Rank Examination (Level-4)

Go Grading-Five Certificate (Highest Rank in Hebei Province)