# **Ruoyang Xiong**

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#### **EDUCATION**

University of Florida Aug 2021 - Dec 2022

Computer Science Master

Hebei University of Technology Sep 2011 - Aug 2015

Intelligence Science and Technology Bachelor

## **RESEARCH EXPERIENCE**

#### Analysis of the urban road network and layout of a city based on machine learning

Aug 2021 - Present

Student Assistant I The SERMOS Lab of UF

Gainesville

- \* Matched accuracy escaping routes of survivals in a terrific wildfire based on Markov chain by using real GPS data
- \* Evaluate the reasonableness of the urban road network design in a city by analyzing the survivors' choice of escape routes, the time to escape the fire field, and the traffic congestion on the main roads during the wildfire

### Analysis of toxic comments on the internet based on machine learning

Sep 2021 - Present

Student Assistant | CISE

Gainesville

- \* Trained a deep learning model (CNN-LSTM with pre-trained word embeddings) for analyzing the targets(toxic or non-toxic, which types of toxic comments) of comments
- \* Used a pre-trained BERT model on the same dataset and compare the two models concerning their accuracy metrics
- \* Used SHAP and LIME to interpret the results especially the false results
- \* Analyzed the effects of addition, replacement, and deletion of certain words on judgment based on the above two models.

#### **WORK EXPERIENCE**

# Beijing Indemind technology Co.,Ltd

Mar 2020 - Aug 2021

C++ engineer | SDK Group

Beijing

- Managed the development work of the group, formulating a phased development plan for the group, releasing new versions of the SDK
- Designed the framework of the project; designing the communication, and transmission of data between algorithm groups
- Developed the SDK which relates automatic simultaneous localization, mapping, and navigation of a kind of floor cleaning robot

#### Beijing MYNT AI technology Co.,Ltd

Apr 2016 - Mar 2020

Group leader & C++ Engineer I SDK Group

Beijing

- Obtained a patent for invention(CN108510550A: automatic calibration device for the visual camera)
- Managed the development of MYNTEYE SDK which is a kind of visual dual-camera and is widely used in the field of SLAM
- Designed software development kits for the MYNTEYE series

#### **MISCELLANEOUS**

- Skills: C++, Python, Jupyter, CMake, Golang, Javascript, C, C#, F#
- More details: https://ruoyangxiong.netlify.app/