

# Statement of Purpose

## I. Motivation

During the summer vacation in 2017, I travelled to the U.S. and visited UF. I was drawn to the gorgeous architecture and beautiful scenery at UF. The thought of studying at UF came to me after the visit. After conducting some research afterwards, I found that the M.S. in CS at UF is a great fit for me, as I can make full use of my experiences to better understand the theories taught in this program. In return, UF's prestige faculty and wide platform will provide me with the opportunities to study in-depth specialization about this subject. This is why I am motivated to pursue the M.S. in CS at UF.

## II. Accomplishments

I accumulated a fair amount of knowledge and skills during my undergraduate studies. I believe I am well-qualified for the M.S. in CS because of my strong will, hands-on skills, and teamwork spirits.

**Learning & Competitions** My knowledge of Machine Learning mainly derives from my undergraduate courses and academic competitions. In 2019 MCM, I led my teammates to complete a project about Opioid Crisis. We analyzed the data from NFLIS, and found the growth pattern of drug reported quantity and the important demographic features to make a breakouts prediction. Besides, in my final projects in *Introduction to Data Mining* course, I made a prediction for NBA players' salary by analyzing the correlation between their performance and earnings. From these experiences, I become familiar with the methods and tools of Machine Learning, which could be valuable to the concentration of Prof. Gader in Data Science.

**Research & Publications** Since my sophomore year, I have researched in Inplus and focused on Blockchain technology. I completed *Blockchain-Based Digital Goods Trading Mechanism in Internet of Vehicles* and *Application of Blockchain in IoT Data Trust and Information Available Technology*, and participated in *Perishable Digital Goods Trading Mechanism for Blockchain-based Vehicular Network* and *BCShare: A Decentralized Data Storage and Sharing on Blockchain*. These experiences deepen my understanding of Game Theory, Trustworthy Systems, Security and Privacy, etc., which inspires me to further explore these areas at UF.

**Internship** I put into practice knowledge of Reinforcement Learning while interning at CASIA. I participated in StarCraft team to build StarCraft II Learning Environment. I trained the soldiers with the MADDPG algorithm and improved the winning rate of soldiers from 26% to 43%. From this internship, I picked up more knowledge in Reinforcement Learning, including traditional algorithms, training methods, evaluating criteria, etc., and learned more about business cases where Reinforcement Learning methods are being applied, which inspires me to integrate them into other studies in the future.

## III. Interests & Goals

If admitted with honor, I am inclined to work on Machine Learning, Artificial Intelligence, Security and Privacy to make full use of my experiences. In the short term, upon obtaining my Master degree, I expect to complete my program with excellent performance to consolidate my knowledge. In the next 3-5 year, I aspire to become a reliable employee in a reputable company. In the long run, I would like to set up my own company and promote promising technologies and services to better our lives. I firmly believe I can lay a solid foundation and learn useful skills at UF to achieve my dream.