# Chengzhe Li

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## **EDUCATION**

#### UNIVERSITY OF MASSACHUSETTS AMHERST

Amherst, MA

M.S. Computer Science Candidate (Expected graduation May 2021)

• Relevant Coursework: Game Programming, Secure Distributed System, Distributed & Operating Systems, Thry & Practice/Software Engin, Machine Learning

#### UNIVERSITY OF MASSACHUSETTS AMHERST

Amherst, MA

B.S. Computer Science (Sep 2016 - Dec 2019)

- **Relevant Coursework:** Artificial Intelligence, Pract & Appl of Data Managemnt, Introduction to Algorithms, Operating System, Computer Networks, Software Engineering
- Awards & Activity: Bay State Master, Course contributor of Computer Networks, ESL Acitivity Assistant

#### **SKILLS**

- Proficient in C/C++ and Python, know about Java, C#, learning LUA.
- Developing experience in Unity3D, knowledge about game programming and underneath.
- Good Understanding of Data Structure, Operating System, Database Management, Networks and algorithm.
- Familair with Agile developing and Software Engineering design and procedure.
- Knowledge and experience of implementing and using AI algorithms and ML models and concepts.
- Understanding of distributed systems, complicated operating systems, and secure decentralized systems.
- Programming expeirnece with RESTful, RPC, mulithreading distributed system, expeirience with docker.

#### **PROJECTS**

## CookingFigher(Working on)

• Final project for 590G(Game Programming), the idea is the player need to fight with the monsterized animal or vegitable to get the food material. In this stage, hit specific part of enemy may also drop the material without killing the enemy. Other material like salt may also need to be acquired in some way. Then, player need to use the same way as cooking in the real life to cook the material. Instruction will be supported to help player learn how to make those dishes. Some fight will happen during the cooking process. Finally, the player will learn how to make a dilicious dish in each stage and have fun. Working with Zachary Ferratti.

#### Bazaar

• P2P networks built in Python, used pyro4 as RPC library, nodes were able to rise "look up" call to buy items from other nodes on the network. The message would be passed by RPC function. The structure of the network was configurable. The network can handle multiple transactions been processed at the same time. Worked with Sharuya.

### **Amazon Reviews Sentiment**

• Machine Learning Project applied to real-life tasks. Used the Amazong review database and processed with deleting all 3 stars review. Leave 1,2 stars as negative and 4,5 stars as positive. Then processing them with libarary textblob to get the review Sentoment. Finally use the processed data to fit in SVM model implemented by Sklearn library to predict a future incoming reviews' sentiment. Accurate can reach 85%

## FixHub

• Replicate study for automatically bug fix Project SimFix, successfully set up the environment, ran SimFix on both local and remote(UMass Edlab machines) machines. Wrote and tested scripts for setting up environments and running Simfix, justifying the correctness of the patches generated. Worked with Zachary Ferratti. Technologies used: Simfix, Defects4J, Linux, Ant, Shell

#### **ToyBlockChain**

• Used template gave by secured distributed system to implemented a toy Blockchain in Python. Which have most basic functions of blockchain including mining, validating a block, varify a transaction.

#### File Master XP

• Worked as a team member of an Agile software development team. Learned the procedure of Agile development and developed a quick search file browser for HPE to search JSON files. Technologies used: React, Bootstrap,Flask,MongoDB,AWS.

## PROFESSIONAL EXPERIENCE

O2 MICRO
Software Intern
May 2018 - June 2018

- Designed and wrote tests to test the functionality and stability of Chips in used by portable electronic devices. Leaned to design and implement useful tools for developing and debugging.
- Quality Assurance for the chips going to be shipped to clients.