# EDUCATION

**Sun Yat-Sen University** (SYSU) Guangzhou, China

Bachelor of **Software Engineering** 09/2016-06/2020 (Expected)

* Overall GPA: 3.6/4.0, ranked 2nd in junior year.

**GRE**: V147 + Q169 + 3.0; **TOEFL**: R28 + L28 + S23 + W26

# PUBLICATIONS

* **Shuo Liu, Kang Liu, Yuanhao Yang, Wuhui Chen,** “Blockchain-Based Digital Goods Trading Mechanism in Internet of Vehicles: A Stackelberg Game Approach”, *2019 International Conference on Blockchain and Trustworthy Systems*.
* **Shuo Liu,** “Optimal Analysis of Target Dynamic Tracking Strategy Based on Computer Vision”, *2019 3rd International Conference on Electronic Information Technology and Computer Engineering*.
* **Pardon …**
* **Pardon …**
* **Shuo Liu, Rui Xi, Yuanhao Yang, Junwei Yao, Wuhui Chen,** “Time is Money: A Location-dependent Mobile Edge Computing Framework”, wish for publishing in *IEEE Transaction on Mobile Computing.*
* **Ting Cai, Zicong Hong, Shuo Liu, Wuhui Chen, Zibin Zheng,** “BCSolid: A Blockchain-Based Decentralized Data Storage and Authentication Scheme for Solid”, wish for pulishing in *IEEE.*

# REASERCH PROJECTS

* **Blockchain-Based Digital Goods Trading Mechanism in IoV**  SYSU, China
* Advisor: Prof. Wuhui Chen 12/2018-06/2019

- *Abstract: We proposed a blockchain-based decentralized digital goods trading mechanism using two-layer Stackelberg Game approach in the hybrid plug-in IoV scenario to motivate each party to participate.*

* + Establishing a decentralized system, in which the consortium blockchain is applied to the hybrid plug-in Internet of Vehicles system.
  + Using two-layer Stackelberg Game approach to design a trading mechanism to motivate each party, *i.e.* provider, consumer, and relay, to participate.
  + Shown by experiment results, our algorithm could converge, generating higher utilities than other algorithms in various situations.
* **Optimized Target Dynamic Tracking Strategy** CUMT, China
* Advisor: Prof. Ce Li 12/2017-03/2018

- *Abstract: We proposed a BPNN and PSO hybrid method to meet the dual requirements of dynamic intelligent capture and timeliness at the next monment of target tracking.*

* + Improving the diversity of particles and accuracy of target information via back propagation neural Network.
  + Preventing particle degradation and find the global optimal solution of particle information quickly via particle swarm optimization.
  + Simulation results shown that, our enhancement on particle filter not only improves the accuracy of target tracking information, but also reduces the time-consuming of target tracking.

* **Duplication for other projects** CUMT, China
* Advisor: Prof. Ce Li 12/2017-03/2018

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# INTERNSHIP EXPERIENCE

* **Institution of … in Microsoft** Shanghai, China
* Working Project: PARFAIT – PredictAble RDMA For AI Training 07/2019-Present

- *Abstract: Taking part as an intern in constructing an RDMA-based multi-tenancy and bandwidth-guaranteed distributed deep learning training prototype.*

* + Designing a virtual network abstraction, named PARFAIT, to enable the physical network to support more tenants and provide bandwidth guarantees.
  + Developing an efficient enforcement scheme that can realize the proposed PARFAIT abstraction in physical networks using a limited number of hardware queues.
  + Implementing the BRAIN part of PARFAIT (low-level development in C++ and logic control in Python), which controls the running system by interacting with agents.
* **Institute of Automation, Chinese Academy of Science** Bejing, China
* Working Project: PYSC2RL - Reinforce Learning Environment of PYSC II 06/2018-09/2018

- *Abstract: Taking part as an intern in building a reinforce learning environment of PYSC II, in which MADDPG algorithm is applied to train the soldiers.*

* + Building a reinforce learning environment of PYSC II in Python, providing optimized strategies for the soldiers by training
  + Applying MADDPG algorithm to the training period to optimize strategies, increasing the winning rate from 42.8% to 95.9%.

# SKILLS

Proficient in Python, Latex, and C++; Familiar with Matlab, Java; Basic in Solidity, JavaScript.

# ACTIVITIES

* **Main Debater** in **the Debate Team** 09/2016-06/2018

- Participated in debate contests on a wide range of topics.

* **Member** of **the Youth League Committee of SYSU** 09/2016-06/2017

- Edited the manuscripts and published them to its official WeChat platform.

* **Member** of **the SYSU Student Union** 09/2016-06/2017

- Edited the manuscripts and published them to its official WeChat platform.

# HONORS AND AWARDS

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| --- | --- |
| Second Prize Merit-based Scholarship, SYSU (top 15%) | 2018-2019 |
| Excellent Student Leader in the school of Data and Computer Science | 2016 |
| Team Championship in the SYSU Inter-School Debate Competition | 2017 |
| Successfully Participant in MCM/ICM (top 55%) | 2018 |