

Yihao Liu

Undergraduate Student



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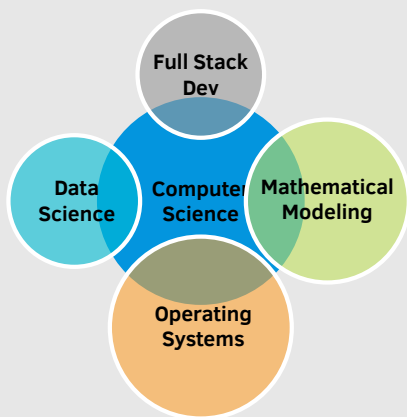
/in/yihao-liu-a48b37112



tc-imba

Technical Skills

Overview

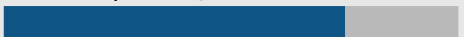


Programming Proficiency

C • C++ • Python • \LaTeX



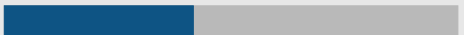
JavaScript • SQL • Shell



MATLAB • R • Java • PHP



Ruby • C#



Education

Bachelor of Science, Electrical and Computer Engineering

UNIVERSITY OF MICHIGAN - SHANGHAI JIAO TONG UNIVERSITY JOINT INSTITUTE
2015 - 2019

Experience

- May 2019 - Present **Teaching Assistant** UM-SJTU-JI
- VE280 (Programming and Elementary Data Structures)
 - VE472/572 (Methods and Tools for Big Data)
- Feb 2019 **Contestant** Mathematical Contest In Modeling
- Awards: Meritorious Winner in Mathematical Contest In Modeling
 - Problem C: The Opioid Crisis
 - GitHub Repo: <https://github.com/tc-imba/MCM2019/>
- May 2018 - Dec 2018 **Teaching Assistant** UM-SJTU-JI
- VG101 (Introduction to Computer and Programming)
 - VE281 (Data Structures and Algorithms)
 - VE482 (Introduction to Operating Systems)
- Feb 2017 **Contestant** Mathematical Contest In Modeling
- Awards: Honorable Mention in Mathematical Contest In Modeling
 - Problem C: Cooperate and navigate
 - GitHub Repo: <https://github.com/tc-imba/MCM2017/>

Research

- Apr 2018 - Present **Project Leader & Full Stack Developer** Joint Online Judge
- Develop a online judge (or auto grader) system for various courses in the joint institute.
 - Begin to lead the project since August 2018.
 - Use python based web engine and back-end accelerated with Cython.
 - GitHub Repo: <https://github.com/joint-online-judge>
- Sep 2018 - Dec 2018 **Research Assistant**
- Solve shortest path problem and its extension problems with reinforcement learning algorithms and compare it with traditional (eg. Dijkstra) algorithms.
 - GitHub Repo: <https://github.com/tc-imba/q-learning-shortest-path-with-relay>
- Feb 2017 - Feb 2018 **Project Leader** UM-SJTU-JI
- IPP (Undergraduate Innovation Practice Program): Research and Implementation of a Student Community for Modern University
 - Provide the student community a platform to communicate and hold events
 - Isolated front-end and code integration systems
- March 2016 - March 2017 **Project Member** UM-SJTU-JI
- IPP (Undergraduate Innovation Practice Program): The Optical System Study and Improvement of Visual Reality
 - make some optimization in optical models of visual reality devices
 - relieve the players from dizziness during the experience of VR
 - A test application in *Unity* is developed
- Oct 2015 - Apr 2016 **Project Member** UM-SJTU-JI
- PRP: (Participation in Undergraduate Research Program): The Development of Teaching Assessment System
 - Developed under the PHP CodeIgniter Framework
 - Two subsystems: TA evaluation and TA admission