YANG XU

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EDUCATION

Bachelor of Engineering in Automation 2016 - 2021
Tsinghua University, Beijing, China.

- GPA : 3.75/4 (rank 31/170)
- Selected Courses: Calculus B(2) (4.0, top 5%), Linear Algebra(1) (4.0,top 5%), Computer Languages and Programming (4.0, top 5%), Data Structures (4.0, top 5%), Contemporary Electronic System Design (4.0, top 5%)
- Current Cources: Theory of Automatic Control, Applied Stochastic Processes, Numerical Analysis and Algorithms, Computer Networks and Applications, Foundation of Artificial Intelligence

Minor in Statistical Science 2018 - 2021
Tsinghua University, Beijing, China.

- Selected Course: Elementary Probability Theory (4.0, top 5%), Statistical Inference (4.0,top 5%)
- Current Cources: Statistical Computing

RESEARCH EXPERIENCE

Design of Attack Strategy Based on Self-learning December 2018 ∼ NaN
Mentor: Yilin Mo, Associate Professor in Department of Automation, Tsinghua University

- Foucus on looking for an attack strategy to destabilise a system knowing as less model knowledge as possible.
- Currently use iterative learning control to estimate the Jacobian matrix between the output (measurements) and the input (control signals).
- The goal is to destabilise a system without triggering an alarm.

PROJECTS AND COMMUNITY ACTIVITIES

P2P Instant Messaging Software November 2019

- A project in the course 'Computer Networks and Applications'.
- A software accomplished with C# and Internet protocols like TCP and UDP, which allows users to communicate with each other by texting, speeches and videos.

'Rolling Block' Game October 2019

- A project in the course 'Foundation of Artificial Intelligence'.
- A game accomplished with Unity, which allows a player to roll a block trying to arrive at a certain position and also provides a few intelligent algorithms to find proper routes automatically, like DFS, BFS and A^*.

Intelligent Logistics Sorting System July 2019

- An AGV equipped with a robotic arm, which is used to sort and transport goods.

Coin Operated Cell Phone Charging Machine October 2018

- A project in the course 'Digital Electronics' accomplished on FPGA using Verilog.

Tsinghua International Summer School July 2018

- Design and create drones along with French students.

SELECTED AWARDS

Second Prize in Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM). November 2019
Academic Excellence Award. October 2018
Academic Excellence Award. October 2017

ADDITIONAL INFORMATION

Skills

- Programming languages: proficient in C, C++, C#, R, Python, MATLAB, Verilog, qualified in Qt, Unity
- Fluent in English (TOEFL 97)