Yutian Chen

Tel: (734) 846-1747 Email: cytian@umich.edu Website: https://cytian.github.io

Objective

A graduate student working towards an M.S. degree in Electrical and Computer Engineering eagerly seeking a full-time Software Engineer position. (graduate in Apr. 2019)

Education

University of Michigan, Ann Arbor, MI Sept. 2017 to Apr. 2019
Master of Science in Electrical and Computer Engineering GPA: 3.8/4.3
Relevant courses: Algorithms, Parallel Computing, Computer Vision

University of Michigan, Ann Arbor, MI Sept. 2015 to Apr. 2017
Bachelor of Science in Computer Engineering GPA: 3.9/4.0
Relevant courses: Data Structure and Algorithms, Autonomous Robotics, Machine Learning, Operating System

Shanghai Jiao Tong University, Shanghai, China Sept. 2013 to Aug. 2017
Bachelor of Science in Electrical and Computer Engineering Major GPA: 3.4/4.0

Work Experience

Emerson Automation Solution, *Software Engineer Intern, Shanghai, China* May.2018 to Jul.2018
Operator Activity Recorder

- Designed a user interface for activity record input and record lookup. (**VBA**, **SQL**)
- Improved efficiency of record lookup by providing commonly used filters for users.

Digital Control Lab, *Software Engineer Part-time* May.2018 to Jun.2018
Gauge Monitoring Web Page

- Designed a web page that can demonstrate the real-time values of gauges. (**C#**, **.NET Core**, **JS**)
- Utilized Modbus TCP protocol to retrieve data from devices at the back-end.
- Optimized the data retrieving process by suspending the thread when no request comes in.

Rtec Instrument, *Software Engineer Intern, CA* Jun. 2016 to Aug. 2016
Line Chart Viewer

- Designed a Windows application in MVVM pattern for the lab technicians to demonstrate massive data in neat line charts. (**C#, .NET**)
- Implemented extra functionalities, such as a multiple-chart display, data cropping, data filtering and etc.
- Improved the capability and speed of the viewer to plotting over 1,000,000 points in 2 seconds.

Project Experience

Smart Water Pipes, *course project of Embedded System* Sep. 2018 to Dec. 2018

- Designed a web page to indicate the status of the water pipes and allow users to manage our system.
- Programmed the Wi-Fi module with a hot spot mode, through which users configure their router ID and password.
- Designed the communication protocol between the Wi-Fi module and the main processor. (**C**, **Arduino**)

Zebra Crosswalk Detection, *course project of Computer Vision* Mar. 2018 to Apr. 2018

- Developed a program to detect zebra crosswalks from the angle of view of pedestrians based on geometric features.
- Implemented Back Propagation algorithm to verify the crosswalk segments in the image no matter there are occlusions. (**Matlab**)

BotLab Autonomous Navigation, *Course project of Autonomous Robotics* Jan. 2017 to Mar. 2017

- Led a team of four to implement a SLAM algorithm with particle filters for a Maebot to explore and navigate autonomously in an arbitrary maze. (**C++**)
- Tuned the parameters of the exploring algorithm and PID parameters to improve the navigation efficiency.
- Ranked 1st among 12 teams in the competition to traverse along the perimeter of a square
- Ranked 2nd in the ultimate challenge to explore and escape from a maze.