

# Ruiqi Wang

ruiqi.w@wustl.edu • (734) 800-6577

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## EDUCATION

**Washington University in St. Louis, St. Louis**

**Sep 2020 – Present**

*Ph.D. Candidate in Computer Engineering*

Advisor: Professor Chenyang Lu

**University of Michigan, College of Engineering, Ann Arbor**

**Sep 2018 – Apr 2020**

*Bachelor of Science in Engineering in Computer Engineering*

GPA: 3.81/4.0

Coursework: Computer Architecture, Linear System Theory, Intro to Coding Theory, Computer Vision, Computer Networks, Intro to Embedded System Design, Embedded Control Systems, Intro to Machine Learning, Intro to Operating Systems, Intro to Computer Organization, Data Structures and Algorithms, Intro to Semiconductor Devices, Electromagnetics I.

**Shanghai Jiao Tong University, UM – SJTU Joint Institute, Shanghai, China**

**Sep 2016 – Aug 2020**

*Bachelor of Science in Engineering in Electrical & Computer Engineering*

GPA: 3.74/4.0

Coursework: Intro to AI, Bayesian Analysis, Programming & Element Data Structures, Electronic Circuits, Intro to Logic Design, Intro to Signals and Systems, Probabilistic Methods in Engineering, Honors Mathematics II.

**Instituto Tecnológico de Buenos Aires, Buenos Aires, Argentina (Exchange)**

**Dec 2017 – Jan 2018**

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## RESEARCH EXPERIENCE

**Washington University in St. Louis**

*Jun 2019 – Aug 2019*

*Summer Research Intern - Department of Electrical and System Engineering with Prof. Bruno Sinopoli and Dr. Sankalp Bhan*

- Developed new course materials about linear control, system identification and linear state estimator for Washington University in St. Louis.
  - Independently developed model reference control and adaptive control algorithms for a parrot quadcopter.
  - Realized Indoor attitude and position tracking and estimation with OptiTrack infrared camera system.
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## PROJECT EXPERIENCE

**Shanghai Jiao Tong University, Capstone Design**

*Machine Learning Aided 1st Principle Modeling and Its Application In Industrial Heat Exchanger Health Management*

*with Dr. Shouhang Bo and sponsored by AIMS*

*May 2020 – Aug 2020*

- Designed an ARMA model for predicting the fouling condition of a commercial heat exchanger.
  - Implemented the prediction of heat transfer efficiency, heat transfer amount and fouling resistance.
  - Designed a user interface for analyzing the working condition of the heat exchanger.
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## **University of Michigan, Multidisciplinary Design Program (MDP)**

*Satellite Remote Sensing Analysis Platform with Dr. Leland Pierce*

*Jan 2019 – Dec 2019*

- Developed library and software for satellite image processing and evaluation.
- Created vector and shape manipulation functions based on Spatialite and SQLite.
- Extended the functionalities of the old library with raster processing and raster-vector conversion functions.

## **University of Michigan, College of Engineering**

*Tank World: Real-world Tank Game with Embedded Control System with Prof. Sample Alanson and Prof. Matt Smith*

*Jan 2019 – Apr 2019*

- Developed remote controller and motor driver with FPGA.
- Set up serial and wireless communication platform based on XBee module.
- Developed sound and light effect for the system to enhance players' gaming experience.

## **University of Michigan, Michigan Electric Racing Team**

*Control Division*

*Sep 2018 – May 2019*

- Set up CAN network interface and wiring for the communication between sensors and controlling unit.
- Built embedded steering wheel controller based on AT-90 CAN module.
- Developed programs for the electronic control unit (ECU) on the racing car.

## **Shanghai Jiao Tong University**

*Remote Electrical Device Controlling System Based on E-mail Server with Prof. Yanfeng Shen*

*Jun 2017*

- Elected as the team leader
- Controlled electrical devices remotely and upgraded traditional devices to intelligent ones.
- Analyzed the command from e-mails and turn on/off the devices with ESP-8266 Wi-Fi module.

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## **HONORS & AWARDS**

<b>Jun 2020</b>	Outstanding Graduate, Shanghai, China
<b>Apr 2019</b>	College of Engineering – Winter 2019 Dean's Honor List at the University of Michigan
<b>Dec 2018</b>	College of Engineering – Fall 2018 Dean's Honor List at the University of Michigan
<b>Nov 2017, 2018</b>	2016 – 2017, 2017 – 2018 SJTU Excellent Undergraduate Scholarship
<b>2017 – 2018</b>	UM – SJTU Joint Institute "Dean's List" (Fall Semester & Summer Semester)
<b>2016 – 2017</b>	UM – SJTU Joint Institute "Dean's List" (Fall Semester & Summer Semester)

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## **VOLUNTEER & EXTRA-CURRICULAR INVOLVEMENT**

<b>Oct 2018 – Mar 2019</b>	Organizer, Environmental Panel of Michigan China Forum
<b>Sep 2018 – Present</b>	SJTU Student and Alumni Association at the University of Michigan
<b>Sep 2018 – Apr 2019</b>	Volunteer Student Mentor for Michigan Engineering Zone
<b>Oct 2016 – Jul 2017</b>	News Department of the Student Union of UM – SJTU Joint Institute
<b>Nov 2016 – Aug 2018</b>	"JI People" Interview Group
<b>Oct 2016 – Aug 2018</b>	Second Base, Baseball Team of Shanghai Jiao Tong University

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## SKILLS

<b>Language</b>	Proficiency in English and Mandarin. Entry level in Spanish and German.
<b>Programming</b>	C, C++, Python, MATLAB, Verilog, Latex, Simulink. Windows and Linux operation.
<b>Software</b>	Mathematica, Origin Lab, Visual Studio, Vegas and Microsoft Office.

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