

SIZHE ZHU

3020 Swindon Way Apt 101, West Lafayette, IN 47906
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EDUCATION

Purdue University, Elmore Family School of Electrical and Computer Engineering PhD in Electrical and Computer Engineering	Advisor: Dr. Weng Cho Chew, Dr. Luis Gomez	West Lafayette, IN Exp May 2027
Case Western Reserve University, Case School of Engineering MS in Systems and Control Engineering with Honor	Advisor: Dr Wei Lin	Cleveland, OH Aug 2022
Case Western Reserve University, Case School of Engineering BS in Electrical Engineering	GPA 3.63	Cleveland, OH Jan 2021

SKILLS

- Programming Language: MATLAB/Simulink, Java, C/C++, Python, LabView, Mutism, Active HDL.
- Modeling, Model Reduction
- User Interface Design
- Electronic Circuits Design
- Language: English, Chinese, Japanese

WORKING EXPERIENCE

Siemens EDA (Mentor Graphics) Software Development Intern		Wilsonville, OR May 2023-Aug 2023
<ul style="list-style-type: none">• Develop software to translate physical geometry information to Mesher form.• Create mesh and extraction entities information.• Use field solver to calculate capacitance matrix.		
Case Western Reserve University Teaching Assistant		Cleveland, OH Sept 2020-June 2022
<ul style="list-style-type: none">• Aided teaching staff in preparing Quiz and Exam combining with solutions and explanation.• Developed educational MATLAB Transcript (Gibbs' Phenomenon, Fourier series, etc.) for students.• Provided office hour to help students with problem solving and course material understanding.• Grading HomeWorks, quizzes and exams.		

RESEARCH AND EXPERIMENTAL DESIGN EXPERIENCE

Purdue University Graduate Research Assistant		West Lafayette, IN Jan 2023-Now
<ul style="list-style-type: none">• Discrete Exterior Calculus Field Solver development.• Impedance Extraction		
Case Western Reserve University Research Scientist		Cleveland, OH Jan 2020-June 2022
<ul style="list-style-type: none">• Developed Stabilization Algorithm of Quadcopter by Nested Saturation Feedback and Controllability Analysis.• Self-designed Arduino based four propellers quadcopter with Arduino IDE user interface.• Balanced Quadcopter using Nested Saturation Control Algorithm, which responses faster and smoother than classical PID controller. Results show that bounded state feedback can achieve the global uniform asymptotic and local exponential stabilization of the model with two delayed inputs.• Analyzed the Controllability of Quadcopter with One, Two, or Three Propellers Lost.• Tested tilting arm designed quadcopter with one pair of opposite propellers lost.		

REWARDS

Case Western Reserve University Dean's High Honors		Cleveland, OH Fall 2019, Spring 2020, Fall 2021, Spring 2022
<ul style="list-style-type: none">• Attaining a grade point average of 3.75 or higher.		