

# Yifei Zhao

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## EDUCATION BACKGROUND

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### University of Washington

*Master of Science in Electrical Engineering*

**Seattle, WA**

*Sep.2023-May.2025(Expected)*

### University of Illinois Chicago (UIC)

*One-year Exchange Program*

**Chicago, IL**

*Aug.2022-May.2023*

- Major: Electrical and Computer Engineering
- Average Score: 4.0/4.0

### Nanjing University of Aeronautics and Astronautics (NUAA)

*Bachelor of Engineering in Electrical Engineering and Automation*

**Nanjing, China**

*Aug.2019-Jun.2023*

- Average Score: 88/100

### Scholarships & Honors:

- NUAA Second-class Scholarship for Academics, 2019/2020, 2020/2021; Rate: Top 20%
- Triple-A student, Oct. 2021; Rate: Top 15%

## RESEARCH & PROJECT

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### Wildfire Detection Research Project

*Dec.2022-Aug.2023*

Advisor: Ahmet Enis Cetin

- Built a custom wildfire dataset consisting of 35k images
- Trained several publicly available neural network models using transfer learning
- Conducted a comprehensive survey of the neural network models specifically designed for detecting wildfires using regular visible-range cameras positioned on hilltops or forest lookout towers.

### UIC Senior Design Project

*Sep.2022-Apr.2023*

- Built an autonomous driving system with depth camera and Lidar using Robot Operating System
- Using FreeRTOS to complete the robot motion control tasks
- Won the Best Show award in UIC 2023 Engineering Expo

### NUAA High Voltage and Insulation Technology Lab

*May.2021-Aug.2021*

- Designed plasma drive, optimized the structure design of surface dielectric barrier discharge electrode
- Participated in the device design of air purifiers and developed a small compact plasma air purifier
- Won the 1st-prize in the National Plasma Science and Technology Innovation Competition in Nov. 2021

### NUAA Electrician and Electrical Lab

*Nov.2021*

- Programmed microcontroller with Keil uvision5, configured Hall sensor for voltage measurement
- Completed the measurement of milliohm resistance, and display of voltage, current and resistance on the OLED display screen

## SKILLS

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**Programming:** Python, MATLAB, C

**EDA Software:** AutoCAD, Multisim, PowerWorld, Saber Sketch, Altium Designer

**IDE:** Keil uVision, PyCharm, Visual Studio

**Framework:** Pytorch, ROS, FreeRTOS

## Publication

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Ziliang Hong, Emadeldeen Hamdan, **Yifei Zhao**, Tianxiao Ye, Hongyi Pan & Ahmet Enis Cetin. "Wildfire detection via transfer learning: a survey" Signal, Image and Video Processing (2023)