

Haochen Ding

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Education

University of Illinois Urbana-Champaign

BS in Engineering

Aug 2023 - May 2027

GPA: 3.99/4.00

- **James Scholar** in Grainger College of Engineering.
- **Dean's List** Fall 2023, Spring 2024.
- **Coursework:** Intro to Comp Sci I, II, Discrete Structures, Linear Algebra, Fundamental Mathematics.

Nanjing Foreign Language School

High School Diploma

Sep 2020 - June 2023

Experience

Assistant Tutor

Siebel Center of Computing and Data Science

Champaign, IL

Jan 2024 - May 2024

- Tutored CS 124 students in basic Java programming and web design.

Undergraduate Researcher

Healthcare Engineering System Center

Champaign, IL

Sep 2024 - Present

- Self-studied machine learning, neural networks, and TensorFlow.
- Annotated gazes data using Computer Vision Annotation Tool (CVAT).

Embedded Team Member

Illini EV Concept

Champaign, IL

Sep 2024 - Present

- Developed skills in CubeIDE, KiCAD, PCB design, and communication protocols.
- Developed translation logic between CAN and USB messages.
- Wrote Python scripts for testing.

Projects

Rust-based Fast Fourier Transform Calculator

Final Project for CS 199-128

Mar 2024 - May 2024

[FFT-Calculator](#) [🔗](#)

- Self-studied and implemented Fast Fourier Transform (FFT) and Cooley-Tukey algorithm.
- Implemented SIMD trait with Rust SIMD crate and multi-thread optimization.
- Developed front-end interactive interface based on Actix framework.

Super Study Room

Wildhacks 2024, Northwestern University

Mar 2024 - May 2024

[Super_Study_Room](#) [🔗](#)

- Full stack development of a study room registration platform to improve students' productivity.
- Self-studied Typescript programming with Next.js framework and Prisma database tool.
- Achieved quick registration across multiple libraries based on time preference.

Hardware PID Automated Guided Vehicle

Final Project for ECE 198

Sep 2024 - Present

- Employed ultrasonic sensors for obstacle detection.
- Achieved smooth speed control with DAC and PID circuit.
- Implemented motor system with H-bridge.

Skills

Languages: English (Full Professional Proficiency), Chinese (Native Proficiency).

Computer Languages: C++, C, Rust, Python, Java, JavaScript, HTML/CSS.