Yang Cai

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Education

- **Northwestern Polytechnical University, Xi'an, China** *Sept. 2022 – Present*
  Bachelor, Information Engineering
  GPA: 3.65/4.1, 88.72/100
  Relevant Courses: Calculus H (94), Fundamentals of Electric Circuits I (91), Probability Theory and Mathematical Statistics H (92), Functions of Complex Variables and Integral Transformations H (90), Digital Fundamentals, Signal and System I, Fundamentals of Analog Electronics I

Research Experience

- **Co-Principal Investigator, National-Level College Student Innovation and Entrepreneurship Project on Hybrid Engine Design**
  Northwestern Polytechnical University, Xi'an, China *April 2024 – Present*

    - Supervised by Professor Yongqiang Shi.
    - Co-led the design and implementation of an algorithm based on automatic control principles and machine learning, enabling the engine to autonomously adjust its speed.
    - Oversaw the deployment of the algorithm onto hardware, facilitating long-distance travel by leveraging hybrid power from both fuel and electricity.

Internship Experience

- **Position, Company/Institution Name, Location** *Month Year – Month Year*

    - Brief description of your responsibilities and achievements.
    - Another significant achievement or task.

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Competition Experience

- **Mathematical Contest in Modeling (MCM)** *January 2024*
  Honorable Mention
  Participated in the Mathematical Contest in Modeling (MCM), a prestigious international competition that challenges students to solve real-world problems using mathematical modeling. My team worked on a problem related to the control of water flow in the Great Lakes, developed a robust model, and provided innovative solutions, leading to the achievement of the Honorable Mention.

Honors & Awards

- **Second-Class Scholarship**, *Northwestern Polytechnical University* *December 2023*
  Awarded for outstanding academic performance in the academic year 2022-2023, recognizing consistent excellence in coursework and overall academic achievements.

- **Diligent Study Model**, *Northwestern Polytechnical University* *December 2023*
  Recognized as an exemplary individual for dedication and perseverance in studies, awarded to students who demonstrate exceptional commitment to academic growth.

Skills

- **Programming Languages:** C (Proficient), Python (Proficient)
- **Tools & Technologies:** MATLAB, LaTeX (Proficient)

Languages

- **Chinese:** Native
- **English:** Proficient

Extracurricular Achievements

- **Yan Yiti Cup**, *Northwestern Polytechnical University* *November 2023*
    - 4th Place in Men's 50m Freestyle
    - 1st Place in Men's 50m Backstroke
    - 1st Place in Men's 4x50m Relay
    - 1st Place in Mixed 4x50m Relay