Michelle Mai

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EDUCATION

Columbia University, B.S. New York, NY
Major: Computer Science September 2023 - May 2027
Relevant Coursework: Python, Java, Electrical Engineering Lab

TECHNICAL SKILLS

Programming Languages: Python, Java, HTML, CSS
Software: LT Spice, Autodesk, Logic.ly, MATLAB, LabView

WORK EXPERIENCE

Research Experience for Undergraduate Houston, TX
Electrical Engineering Lab Research Assistant May 2024 - Present

- Worked on developing a robotic arm and coded software to enhance its functionality, significantly improving patient outcomes by facilitating more precise medical procedures
- Utilized state-of-the-art simulation tools and MATLAB to model and analyze electromagnetic fields and their effects on various materials and biological tissues.

Artificial Intelligence Outlier New York, NY
Artificial Intelligence Developer June 2024 - Present

- Analyzed code written in various programming languages to identify and resolve issues.
- Ensured the consistency and accuracy of artificial intelligence responses.

PROJECTS

UI/UI Designer Personal Portfolio

- Developed a responsive personal portfolio website using HTML, CSS, and JavaScript, showcasing strong front-end development skills and a keen eye for modern UI/UX design principles.
- Integrated a dynamic contact form with Google Apps Script, demonstrating proficiency in both client-side and server-side scripting to enhance user interaction and functionality.

Voting Machine

- Designed a circuit using Logic.ly that would offer the voter a choice of two candidates and record the votes using two 5-bit binary counters.
- The voting machine starts by pressing the button “READY” to enable the machine to record the next vote, then the voter chooses a candidate by pushing one of two buttons, and lastly, the voter presses the third button “CAST” to cast the vote.

Resistor Value Calculator

- Designed a comparator op-amp circuit in LTspice that has an LED attached, to indicate that the op-amp reached the threshold
- Created two input terminals where different resistors will be connected and produce an output voltage numerically equal to the resistor value in kΩ.

Paper Rock Scissors Player vs. Machine

- Developed an Automated Game Simulation System featuring item selection with indicator lights, unpredictable item cycling, and clear game result interpretation through intuitive controls.
- Created a system that includes functionalities like the “Start New Round” button to reset indicators and the “Initialize” toggle switch for simulation setup.

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Columbia Undergraduate Science Journal (CUSJ) New York, NY
Member September 2021 - Present

- Organizing a TED Talk project aimed at bringing speakers to Columbia University to share their personal and professional journeys, illuminating the paths that have shaped their careers in research.

Columbia Space Initiative New York, NY
Member June 2022 - August 2022

- Create a comprehensive proposal for the Large-scale Lunar Prospecting Rover competition, intending to submit it to NASA.
- Engage in both critical and creative thinking to address a mission successfully.