# Jiaming Xu

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## Education

**University of Illinois At Urbana-Champaign** — Champaign, IL
*Bachelor of Science in Electrical Engineering, Minor in Computer Science; GPA: 3.91* — *Jan. 2021 – May 2024*

## Experience

**Distributed Autonomous Systems Laboratory (DASLab)** — Champaign, IL
*Undergraduate Research Assistant - Innovative Approach of Crop Height Determination* — *May 2023 – Present*

- Research in plant height determination using stereo cameras, comparing results with ultrasonic approach
- Assist faculty members with research assignments on agricultural field robotics projects
- Record and analyze data and maintain source documentation following good documentation practices
- Work on robotics software programming with ROS, Raspberry Pi, and Arduino
- 3D design and hardware prototyping

**Human-Centered Autonomy Lab (HCA)** — Champaign, IL
*Independent Research Study - Bi-manual Robotics Manipulation* — *June 2023 – Present*

- Research on imitation learning, specifically focusing on bimanual manipulations
- Experiment with established methodologies such as diffusion policy and inverse behavior cloning
- Study and assist faculties in innovating and proposing state-of-the-art algorithms
- Develop a bimanual manipulation program for two UR5-e robots with Space Mouse controls
- Build several different simulation task environments and collect sample data sets for training purposes
- 3D design and hardware prototyping

**Department Of Electrical And Computer Engineering** — Champaign, IL
*ECE 329: Fields and Waves I Grader* — *Aug. 2023 – Present*

- Assist Professors and Graduate Teaching Assistants in grading homework and exams

**Department Of Electrical And Computer Engineering** — Champaign, IL
*ECE 205: Electrical and Electronic Circuits Grader* — *Aug. 2022 – May 2023*

- Assist Professors and Graduate Teaching Assistants in grading homework and exams

## Projects

**Battle City** | *SystemVerilog, C++, DE10 FPGA* — Aug. 2022 – Dec. 2022

- Designed and implemented a two-player PvP version of the Battle City game on the DE10 FPGA board using SystemVerilog
- Designed players-control tanks via keyboard input, each starting from different positions, aiming to destroy their opponent's headquarters
- Achieved dynamic tank movements and bullet firing mechanics, closely resembling the classic game's experience

## Technical Skills

**Languages**: Python, C/C++, SystemVerilog, Java
**Hardware Prototyping**: SolidWorks, 3D Printing, CAD Drawing, Soldering
**Developer Tools**: ROS, ROS2, Git, VS Code, Arduino, Raspberry Pi

## Related CourseWorks

**ECE 470**: Introduction to Robotics
**ECE 486**: Control System
**CS 498**: Mobile Robotics for CS