Xiping Sun

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EDUCATION

University of Illinois at Urbana-Champaign   Aug 2021 - May 2025
Bachelor Science of Computer Science
GPA: 3.92/4.0
Relevant Coursework: Data Structures, Database Systems, Computer Architecture, System Programming, Algorithm, Computational Photography, Optimization
Honors/Awards: Dean List (Fall 2021, Spring 2022, Fall 2022, Spring 2023)

SKILLS

Programming Language: Python, Java, C++, C, SQL, MongoDB, Neo4J
Web Development: HTML, CSS, Javascript, Typescript, React.js, React.ts, Flask, Node.js

PUBLICATION

- Sun X, Effects of Saline-alkali Stress on Rice Growth, Development, and Physiological Characteristics and the Regulating Ways[J]. Territory & Natural Resources Study, 2020, (5):92 DOI: 10.16202/j.cnki.tnrs.2020.05.028
- Zhao, W., Cui, Y., Sun, X., Wang, H., & Teng, X. (2020). Corn stover biochar increased edible safety of spinach by reducing the migration of mercury from soil to spinach. Science of The Total Environment, 143883.

WORK EXPERIENCE

LifeFoundry   May 2023 - Present
Software Engineering   Hangzhou
- Engage in a diverse range of projects, spanning from addressing critical gaps in the R&D workflows of companies equipped with established R&D teams to delivering comprehensive strain engineering services
- Test and debug web pages in the **frontend**, implement new snapshot **UI** for the dashboard, and research on microsoft dynamic UI design and implement
- Support service log stream system in the **backend**, test and debug connection between frontend and backend, and implement backend some basic functionalties

RESEARCH EXPERIENCE

RoboTouch Lab   Aug 2023 - Present
Research Assistant   Champaign-IL
- Work on helping robots to use touch sensing to interact with real-world environments and design new tactile sensors to extend the perceptual capability of robots, and study how the tactile feedback
- Use python imgui-bundle building Render, Design, and View windows in Blender, and collect papers related to imgui-bundle
- Build UI for a user and developer friendly research on camera property of each sensor and assist user and developer to easily create sensors with different properties

Field Robotics Lab   Jan 2023 - Aug 2023
Research Assistant   Champaign-IL
- Create highly autonomous mobile robots that can deal with harsh, changing, and uncertain outdoor environments
- Responsible for the collection of three-dimensional data of the camera using **python**, cut and process video pictures bases on the number of frames
- Set up three-dimensional modeling of the surrounding environment for the robot camera and generate three-dimensional dataset for training a robot system that can find the optimal path by coordinating the grid coordinates in the real world using Reinforcement Learning

PROJECT EXPERIENCE

Art Style Classification and Transfer   Aug 2023 - Dec 2023
Developer   Champaign-IL
- Build convolutional neural network to realize the transmission of image styles and successfully reproduce the paper model
- Generate different styled images and collect images to build a database for training
- Build classification model to test the accurancy of the convolutional neural network model with differet styled images and improve the model

Disruption Lab-AI Chatbot   Aug 2023 - Dec 2023
Software Engineering   Champaign-IL
- Use AWS with pre-trained model **LLM-13b** and question-answer pairs dataset to train the AI tutor model
- Build vector database and generate dataset of question-answer pairs by designing different prompts with OpenAI's key

Find Classmates   Jan 2023 - Present
Developer   Champaign-IL
- Proficiency in using **figma** website to design home, profile, login, chat, course description and other page UI
- Skillfully use **React.js** to write front-end home, login, profile and other pages, and write unit tests to test whether the front-end input content is consistent with the back-end incoming data

Disruption Lab-Security   Jan 2023 - Aug 2023
Software Engineer   Champaign-IL
- Responsible for establishing a visual malware database and independently completing the classification and summary of the danger level of malware
- Cooperate with the design of machine learning models to complete the analysis and classification of malwares
- Apply to virtual machine NCSA center, and measures to protect and delete VM after running malware are proposed

Police Trafic System   Aug 2022 - Dec 2022
Developer   Champaign-IL
- Use the real data in the San Fransisco area to simulate police and bandit tracking, and simulate the escape route of fugitives to train police pursuit capabilities
- Use graphs, Dijkstra, Prime and DFS algorithms to predict the next best police station location and find the location to install the emergency alarm system in **C++**

ECE110 Honor Lab   Aug 2021 - Dec 2021
Developer   Champaign-IL
- Investigate and do research on robots, design a quadruped spider robot, model parts of the robot, and 3D print all parts of the robot with hot melt glue, solder to complete the circuit board and python to complete the circuit code
- Use the Raspberry Pi to complete the **python** coding of the robot and drive the robot through an AC mobile power supply, so that the robot can complete basic actions such as sitting, standing, and walking, and use sensors to design and develop the robot's obstacle avoidance function

LEADERSHIP EXPERIENCE

CS 101   Aug 2022 - Present
Course Assistant
- Teach lab sections, hold online Office Hours, and anwer over 200 studnets' answers related to python programing questions in homwork, daily lecture, lab, and exams