

Xipeng Wang

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West Lafayette, Indiana, 47906

Research Experience

Undergraduate Researcher

Aug, 2022 – Present

Purdue Robomaster Team

- Developed an inhouse synthetic data generation pipeline for object detection in robotics competition
- Utilized Autodesk Maya to build photo-realistic virtual environments with randomizable parameters
- Improved model performance and generalizability in real-world environment

Undergraduate Researcher

Aug, 2022 – Present

Elanco

- Developed a real-time computer vision based solution for pet identification and pose detection
- Designed and implemented a deep neural network using PyTorch for pose classification
- Employed a combination of transfer learning and hyperparameter tuning to optimize the performance of an existing object detection model, enabling accurate breed classification

Project/Other Experience

Lets-Ride Project

Aug, 2022 – Dec, 2022

Purdue University

- Full stack development for website hosting NFL match predictions and team statistics
- Developed interactive pages using React and Node.js
- Maintained team database using PostgreSQL

PROS Kernel Developer

Aug, 2022 – Present

Purdue ACM SIGBots

- Maintained PROS Kernel, a software used by VEX Robotics teams around the world
- Jointly coded autonomous mode for robots by implementing PID controller and Odometry

Undergraduate Teaching Assistant

Jan, 2023 – Present

Purdue University

- UTA for CS252: Systems Programming, held lab sessions and office hours

Education

Purdue University

May 2020 – Present

Bachelor of Science: Computer Science, Game Development and Design

West Lafayette, IN

- Dean's List & Semester Honors 2020 – Present

JSerra Catholic High School

Aug 2016 – May 2020

High School Diploma

San Juan Capistrano, CA

- Dean's List & Honors Roll 2018 – 2020
- AP Scholar with Distinction Award
- President of VEX Robotics Club

Research Presentations

Chen, R., Leight, M., Wang, X., Xiao, Y., Xu, M., & Chung, M. (2022, November 14-21). Utilizing Data Augmentation to Train YoloV5 Object Detection for Armor Plates for Purdue RoboMaster Robotics Team [Poster Presentation]. 2022 Purdue Fall Undergraduate Research Expo, West Lafayette, IN, United States.

Specialized Skills

Programming Languages: C & C++, Java, Python, R, SQL, JavaScript, HTML, CSS

Tools: OpenCV, Tensorflow, PyTorch, Unix/Bash, Git, ROS, Latex, React, Node.js, Flask, Unreal Engine, Maya

Certificate: NVIDIA DLI for completion of Fundamentals of Deep Learning – 2022

Credential ID: 30a83509cf094595a6e3060f70fd1655