Yiwen Mei

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EDUCATION

China Agricultural University Beijing, China
Bachelor of Engineering in Computer Science and Technology Sept. 2020-Jul. 2024

- **GPA**: 3.61/4.0
- **Core Courses**: Advanced Math, Linear Algebra, Discrete Mathematics, Computing Method, Probability Theory and Mathematical Statistic, Data Structure, Algorithms Design and Analysis, Principles of Database Systems, Data Mining, Big Data Training, Artificial Intelligence, Software Engineering, Statistical Machine Learning

The University of Nottingham Ningbo China Ningbo, China
Summer Program (Academic English, Workshop, Enterprise Visit) Jul. 2022

HONORS & AWARDS

First Prize, **2022 CAU (China Agricultural University) Big Data Skills Competition** May 2022
Second Prize, **The 13th National Mathematics Competition for College Students** Dec. 2021
First Prize, **The 32nd Beijing Undergraduate Mathematics Competition** Dec. 2021
CCF Certified Software Professional (Top 17.39% nationally) Sept. 2021
Second Prize, **2021 CAU Mathematical Modelling Competition** Aug. 2021
Third Prize, **2021 Beijing Mathematical Modelling and Computer Application Competition** Jun. 2021
Third-level Academic Scholarship, **China Agricultural University** Jun. 2021

RESEARCH EXPERIENCE

Object Rotation Detection Based on 3D Point Clouds Oct. 2023-Jun. 2024
(Undergraduate Thesis) | Advisor: Prof. Lili Yang

- Deeply analyzed **3D point clouds** and developed a tool for **object orientation prediction** and labeling
- Created a dataset by collecting 1,191 samples with angle labels using Lidar, preprocessed and clarified the data, trained the dataset using **PointNet++**, and obtained a data visualization with clear labeling

Study on the Classification of Lettuce Nitrogen Levels Based on the Integration of Hyperspectral and Image Features May 2023-Apr. 2024
(National College Student Innovation and Entrepreneurship Project) | Advisor: Prof. Minjuan Wang

- Aimed to develop a feature fusion-based convolutional neural network for the improvement of classifying lettuce nitrogen levels by **integrating hyperspectral and image features**
- Conducted plant experiments, gathered hyperspectral data, and wrote programs to **preprocess** the acquired RGB images to enhance the quality and extract relevant information

Data Collection System for Three-Dimensional Cultivation Plant Factory May 2022-Apr. 2023
(CAU College Student Innovation and Entrepreneurship Project) | Advisor: Prof. Minjuan Wang

- Designed a crop **image acquisition system** used in three-dimensional cultivation in plant factories to collect crop images for crop growth monitoring and disease analysis
- Completed modeling in SolidWorks, devised data collection device, established communication between upper computer software and the microcontroller, processed images, and designed UI components

INTERNSHIP

Easthome Beijing Consulting and Service Co., Ltd. Feb. 2024-Mar. 2024
Post: Intern (Product Manager)

- Led a team to develop an **English vocabulary app** that incorporates features including user management, various learning modes, vocabulary management, progress tracking, etc.
- Contributed to UI design and software testing, prepared and delivered product release presentation, and launched the app successfully

PATENTS

Methods and Related Equipment Technology to Identify Agricultural Pests Based on Object Detection Technology *(Patent No.: CN114926720A)* Oct. 2021- May 2022

- **Inventors**: Chunli Lv, Yan Zhang, Shuihai Zhang, **Yiwen Mei**, Xinyu Yang, Manzhou Li
- **Description**: Developed various methods and a portable handheld device using object detection technology, which can detect and identify agricultural pests and collect visible light image data

A Method and Related Equipment for Detecting Various Diseases in Plant Leaves
(Patent No.: CN114972852A) Oct. 2021- May 2022

- **Inventors**: Chunli Lv, Yan Zhang, Manzhou Li, Shuihai Zhang, Xinyu Yang, **Yiwen Mei**, Yufei Ren
- **Description**: Developed a method to diagnose diseases in plant leaves and provide corresponding solutions using a Convolutional Neural Network (CNN) model

PROJECTS

Deep Learning-Based Weather Image Recognition May 2023-Jun. 2023

- Clarified weather images into categories based on Convolutional Neural Network (CNN) using **transfer learning** and **data augmentation**
- Conducted comparative analysis of training results of CNN, VGG, and ResNet models, improved models, and achieved the optimal model with an accuracy of 90%

Data Structure and Algorithms Visualization Platform Jun. 2022-Aug. 2022

- Built a knowledge graph platform using **Qt** to visualize course content on data structures and algorithms
- Designed features such as knowledge graph visualization in the homepage, keyword search, and knowledge points categorization, and successfully registered copyright for the software

Bookstore E-commerce Management System May 2022-Jun. 2022

- Developed an E-commerce Management System utilizing book data and member profiles, allowing users to navigate books by category, shop, place orders, and give feedback.
- Integrated management tools for books, retailers, customers, and tracking search insights and orders.

ACTIVITIES

Volunteer, **Tsinghua University Press** May 2022-May 2024

- Supported the development of the programming question bank by setting questions and improving answers for the Computer Teaching and Industrial Practice Resource Construction Committee (TIPCC)

Trainee, **NVIDIA & XSUPERZONE Skills Training for Full-Stack AI Developer** Sept. 2023
-Introducing Synthetic Data Generation

- Engaged in the training program to learn the implementation, programming, and training of a four-class obstacle avoidance dataset, finished programming experiment, and was awarded a completion certificate

Trainee, **Baidu Pinecone School** Jan. 2022-Dec. 2022

- Passed the selection exam and got admitted into the Baidu Pinecone Talent Development Elite Class
- Took online programming courses, honed programming skills, and received a certificate of completion

SKILLS

Languages: Chinese (Native), English (Proficient)
Programming skills: C, C++, Python, R