

PEIYANG TIAN

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EDUCATION

Detroit Green Technology Institute, Hubei University of Technology(HBUT) Sept. 2022 – Present
Bachelor of Engineering, HBUT & University of Detroit Mercy(Expected in June 2026)

- **Major:** Software Engineering
- **GPA:** 4.14/5.0 (equivalent to 3.92/4.0) | **Ranking:** 3/62
- **Academic Scholarship, HBUT:** First-Class (2023& 2025, 3%), Third-Class (2024)
- **Relevant Coursework:**
Mathematics: Advanced Mathematics, Probability & Statistics, Linear Algebra
Computer Systems: Computer Organization, Data Structures & Algorithms, Operating Systems
Software Engineering: Software Engineering, Software Testing, Programming I

INTERNSHIP EXPERIENCE

Neutech Group Co., Ltd. Jun. 2025 – Aug. 2025

Training and Practicum: Intern of Python Development Engineer, Python Development Department

- Utilized OpenCV for image recognizing and mastered image processing techniques to analyze image datasets
- Performed training set segmentation and testing using machine learning algorithms such as K-Nearest Neighbors (KNN)
- Applied deep learning and machine learning models to build neural networks for image processing and classification, and leveraged TensorFlow to sort datasets and process images
- Acquired the network architecture and model structure of YOLOv11 model, and grasped its applications in autonomous driving

Shanghai Hello Puhui Technology Co., Ltd. Jan. 2025 – Mar. 2025

Intern of Software Testing Engineer, Software Testing Department

- Mastered the principles and methods of black-box and white-box testing, and learned how to compile test examples and stub functions, successfully fulfilling the functional testing
- Adopted Jmeter to stimulate the concurrent user access, and monitored indicators such as response time and throughput, addressing coding issues
- Gained proficiency in using QTP and other testing tools to perform automated testing

Beijing Antaiweiao Information Technology Co., Ltd. Jul. 2024 – Sept. 2024

Intern of Java Development Engineer, Java Development Department

- Acquired hands-on experience with Oracle and MySQL database operations for data optimization and maintenance, mastered SVN version control tool for coding collaboration
- Applied Maven for project management and Spring & Springboot for framework development
- Collaborated with project managers to fit the project requirements and provide the timely feedback, demonstrating strong problem-solving and communication skills

SELECTED RESEARCH PROJECTS

“Intelligent Escort”-Autonomous Driving Multi-Target Intelligent Recognition System

Advisor: Prof. Jianjun Li May 2025 – Aug. 2025

- Conducted target recognition using the YOLOv11 model to precisely identify different road elements including vehicles, pedestrians and traffic signs, supporting intelligent transportation systems
- Managed datasets searching, image enhancement, model training and model optimization, employed the YOLOv11m model for parameter adjustment and training, and integrated a large language model(LLM) to evaluate performance and improve the accuracy and stability of the system.

- Improved the YOLO model by introducing SE attention and ghost convolution to increase the accuracy of real-time video stream detection, used Gradio API to build a visual interface and integrated Ollama, YOLOv11m model, OpenCV, Tensorflow and VSCode to streamline project development

Application of Retrieval Enhancement Generation Technology in the Development of Medication Recommendation System

Advisor: Prof. Liang Xiao

Nov. 2024 – May 2025

- Used knowledge graphs to construct an intelligent medication recommendation system to provide more personalized treatment plans for patients
- Extracted core relationship and entities in the medical guidelines by locally deploying the Graphrag model and imported into the visual knowledge graph Neo4j in the form of triples
- Implemented local deployment of Graphrag and utilized local and global query techniques, to create a fast and user-friendly medication recommendation system

Information System Design Practice

Advisor: Prof. Jingliang Chen

Dec. 2024 – Feb. 2025

- Developed an intelligent online examination platform using Web technologies, integrating features like login, question setting, paper preparation, examination and score query
- Applied PowerDesigner for database design and modeling, Visio 2010 for requirement analysis, SQL Server for storing test information and Java for system development in the circumstance of Eclipse

A Study on Bacterial Resistance Analysis in Hospital Laboratory and Its Application in Clinical Decision Support for Medication

Advisor: Prof. Liang Xiao

Dec. 2023 – Jun. 2024

- Achieved automatic statistics visualization and quarterly & annual reports generation of laboratory data by virtue of Python and PyCharm
- Combined with large language models to form chart interpretation and finalized the visualization of clinical data

HIGHLIGHTED COMPETITIONS

China International College Students' Innovation Competition Oct. 2024

- Obtained the Bronze Award for “*Steel Core Guard - Bridge cable defect AI detection robot*”

Asia-Pacific Mathematical Modeling Competition Jul. 2024

- Used the mathematical modeling to analyze and deal with real problems as a modeler

National English Competition for College Students May 2023

- Awarded as the National-level Second Prize

LEADERSHIP AND ACTIVITIES

Class Student Representative in Charge of Studying, HBUT Sept. 2022 – Present

- Initiate weekly meetings with faculty to align on assignments and course updates
- Distribute resources and track submission for 62 classmates, maintaining on-time delivery

Studying Department Cadre, Student Union, HBUT Sept. 2022 – Sept. 2023

- Managed attendance and organized competitions such as “The Most Beautiful Notes” and “The Three-line Poetry”, earning 2023 Outstanding Student Union Cadre Award

ADDITIONAL INFORMATION

Language Proficiency: Chinese-Mandarin (Native), English (Fluent, TOEFL110, GRE330)

Programming: Proficient with C++, Python, Java, Javascript, HTML

Tools: Skilled with PyCharm, IDEA, VScode

Interests: Autonomous Driving, Object Recognition and Detection