Zhan Cheng

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EDUCATION BACKGROUND

Beijing University of Posts and Telecommunications Sep. 2022 - Present
B.E. in Electric Information Engineering; GPA: **87**/100
Honors: Third-Class Scholarship (University-Level)
Queen Mary University of London Sep. 2022 - Present
B.E. in Electric Information Engineering; Joint Degree Program

RELEVANT COURSEWORK

CS Track	Computer Networks, Artificial Intelligence, Data Science, Programming Fundamentals
EE Track	Information Engineering, Electronic Circuit Systems, Signal and Systems
Math Track	Engineering Mathematics, Linear Algebra, Calculus, Physics, Probability Theory

ACADEMIC PROJECTS

MiniTrack: Remote Sensing Target Tracking Jul. 2023 - Aug. 2023
Research Assistant *Cambridge, United Kingdom*

- Utilized TensorFlow and YOLO for detecting small targets in remote sensing imagery, tackling challenges posed by complex backgrounds and diverse scales
- Implemented SORT algorithm for effective tracking of small targets in changing environments, aiding environmental monitoring and resource management
- Integrated OpenCV and imgaug for improved target recognition and detection accuracy in image processing

LLM Impact on College Learning Patterns Sep. 2023 - Present
Team Leader *Beijing, China*

- Employed OpenAI's GPT, BERT, and T5 models to enhance university students' essay writing, problem-solving, and creativity, measuring learning improvements
- Explored NLTK and Hugging Face's Transformers' frameworks to reveal language models' educational potential
- Applied Pandas and NumPy for precise handling, with R & Python for in-depth analysis ensuring result accuracy

OLED Reminder: Microcontroller Task Manager Sep. 2022 - Apr. 2023
Team Leader *Beijing, China*

- Created a microcontroller-based Reminder Robot with OLED display and WeChat integration for real-time task management and reminders
- Leveraged C and Python to enhance experience in work and study through innovative time management tools

SIR-Based Prediction of Infectious Disease Sep. 2022 - Jan. 2023
Individual Contributer *Beijing, China*

- Developed a predictive model for infectious disease spread using the SIR model, analyzing a system of ordinary differential equations with Python optimizing for regional outbreak prevention and control
- Improved SIR model by integrating vaccination variability, yielding accurate real-world data matches
- Established a neural network-based regression algorithm to predict vaccine efficacy and epidemic trends

EXTRA-CURRICULUM

Advanced Mathematics	The Chinese Mathematics Competitions Third Prize
Innovative Entrepreneurship	Zhejiang Youth Maker Competition Third Prize
Technical Skills	Java, Python, C, C++, Matlab, Html/Css, Unix Shell, Numpy, Pandas