XINMENG (MANDY) WU

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EDUCATION	
Northeastern University Sep 2023 – Expected Dec 2 Master of Science in Data Science (Computer Science Department) San Jose, CA, Related Courses: Supervised and Unsupervised Machine Learning, Computer Vision, Database Management, Algorithms Sep 2019 - Jun 2 Bachelor of Engineering in Artificial Intelligence (Computer Science Department) Tianjin, CI Related Courses: Linear Algebra, Discrete Mathematics, Data Mining, Natural Language Processing, Computer Vision & Pattern Recognition, Robotics, Computer Networks WORK EXPERIENCE	2025 , US 2023 'hina
TeslaFremont, CA, Jan 2025 – Pre• Built API for finance data validation using LLM/AI agent and OCR, enabling the daily processing of over \$1 millionKhoury College of Computer Sciences – Northeastern UniversitySan Jose, CA, Aug 2024 – Dec 2• Led weekly SQL workshops; developed and conducted ChatGPT-based NLP to SQL lab• Medical image segmentation using U-Net and fine-tuned SAM (developed by Meta); paper accepted by IEEE CAI 202, China Unicom Group Co., Ltd.Resource Management Engineer InternAug 2022 – Sep 2• Developed a Python-based time series forecasting system for network flow rate prediction, processing over 100,000 da points, resulting in enhanced predictive accuracy and operational efficiencyPROJECTS	, US sent , US 2024 <u>5</u> hina 2022 ita
Real-Time Facial Expression Recognition for Automatic Emoji Generation Sep 2024 – Pre • Developed a facial expression recognition system that generates corresponding emojis, utilizing lightweight deep learn techniques with MobileNet and attention mechanisms Designed a web application for real-time recognition, using React for the front end and Django for the backend	sent sing
 Won third place in the <u>Student Research Showcase</u>, competing among 40+ groups Advanced Car Bidding System and Application Jan 2024 – Apr 2 Conceptualized and engineered the database for a Car Bidding System using Enhanced Entity-Relationship (EER) modeling, executed with SQL, and deployed on Google Cloud Platform (GCP) Implemented full-stack development by integrating Django's backend API development with React's dynamic front-en interfaces, focusing on processing over 10.000 multimedia data entries 	2024 1d
Dysarthric Speech Recognition Enhancement Jan 2023 – Jun 2 • Enhanced speech recognition for articulation disorders by innovating on the UA-Speech with re-segments baseline, utilizing a dataset comprising over 13,000 voice recordings • Utilized Shell, Python, TDNN networks, and TensorFlow for advanced signal processing, achieving a 4% accuracy improvement over traditional models	2023
 Navigation of Intelligent Unmanned Vehicles Developed autonomous functionalities for unmanned vehicles, including data acquisition in ROS, custom keyboard cor in C++, and synchronous positioning and mapping (SLAM) capabilities Integrated modules for movement, mapping, and navigation, enabling automatic obstacle detection and response 	2022 ntrol
Human Action Recognition July 2021 – Dec 2 • Co-authored and published a Computer Vision research paper Skeleton-based human action recognition by the integrat of Euclidean distance in ICIT, 2021 and a paper Human action recognition based on skeleton features in ComSIS, 2023 • Developed advanced skeleton-based modeling techniques for human action recognition, demonstrating robust performation both single-person (up to 89.2% accuracy with the ExGist system) and multi-person (81.2% accuracy) tasks • Processed over 20,000 video clips across more than 150 action categories, totaling 27+ hours of video footage at 25 FPS Voice Interactive System based on Raspberry Pi • Developed a comprehensive voice interactive system integrating speech recognition (using WeNet for ASR), conversational AI (utilizing BERT, LSTM, and CRF for intent recognition and dialogue management), and speech synthes (using Tacotron2 for natural speech generation) for natural language interaction on a Raspberry Pi. • Achieved over 87% accuracy in question-answering tasks, enabling the system to effectively handle daily conversation SKILLS	2022 <u>tion</u> ance S 2022 sis as
Coding Skills: Python (4 yrs.), SQL (4 yrs.), C/C++ (2 yrs.), HTML/CSS (2 yrs.), Java (1 yr.)	

Tools: VS Code, Anaconda, Linux, GitHub, MATLAB, PyCharm, Eclipse, Node.js, MySQL, Apache Spark, Maven Libraries: PyTorch, TensorFlow, Scikit-learn, NumPy, Pandas, Matplotlib, OpenCV