

# Yilin Zhang

(86)15524011185 | 2301048@stu.neu.edu.cn

## EDUCATION

<b>Northeastern University, College of Information Science and Engineering</b> <i>Master of Control Science and Engineering (Achieved 3.80/5, among top 11%)</i> Research interests: <i>Pattern Recognition, Multimodal System, Large Language Model</i>	<b>Shenyang, China</b> <i>Sept. 2023 – June. 2026(expected)</i>
<b>Northeastern University, College of Information Science and Engineering</b> <i>Bachelor of Automation (Achieved 3.78/5, among top 23%)</i> Thesis: <i>Research on anomaly detection methods based on self-supervised learning</i>	<b>Shenyang, China</b> <i>Sept. 2019 – June. 2023</i>

## RESEARCH EXPERIENCE

<b>Postgraduate, Department of Artificial Intelligence, Northeastern University</b> Major: <i>Pattern recognition and Intelligent systems</i> <ul style="list-style-type: none"><li>Currently engaged in research on multi-modal systems and large language models</li><li>Self-Guided Graph Neural Network with Integrated Knowledge for Alzheimer's Disease (<i>Co-first author, in review @ JCR Q1</i>)</li><li>PromptRAG: Stable Retrieval-augmented generation via reinforcement learning (<i>First author, Draft in progress</i>)</li></ul>	<b>Shenyang, China</b> <i>Sept. 2023 – Present</i>
<b>Northeastern University Undergraduate Graduation Project</b> Thesis: <i>Research on anomaly detection methods based on self-supervised learning</i> <ul style="list-style-type: none"><li>Designed a self-supervised agent task based on autoencoders to solve the problem that the existing CutPaste algorithm cannot accurately express abnormal images;</li><li>Designed an anomaly classification network based on attention mechanism.</li></ul>	<b>Shenyang, China</b> <i>Sept. 2022 – June. 2023</i>
<b>Main Members, International Undergraduate Mathematical Modelling Competition</b> <i>Solve the physical energy distribution problem in cycling competition</i> <ul style="list-style-type: none"><li>Apply fluid model and Newton's second law to construct a dynamic model of a bicycle</li><li>Establish physical strength and output power formulas based on physiological knowledge</li><li>Use dynamic programming models to find ways to make athletes perform better</li></ul>	<b>Shenyang, China</b> <i>Jan. 2022 – Feb. 2022</i>

## EXTRACURRICULAR ACTIVITIES AND ACHIEVEMENTS

<b>Northeastern University Graduate Academic Scholarship</b> <i>First scholarship</i>	<i>Nov. 2024</i>
<b>Northeastern University Graduate Academic Scholarship</b> <i>First scholarship</i>	<i>Nov. 2023</i>
<b>Northeastern University Outstanding Student Scholarship</b> <i>Second scholarship</i>	<i>June. 2023</i>
<b>Northeastern University Outstanding Student Scholarship</b> <i>Third scholarship</i>	<i>Sept. 2022</i>
<b>Northeastern University Outstanding Student Scholarship</b> <i>Second scholarship</i>	<i>Sept. 2020</i>
<b>ROBOMASTER2021 Robot Master College Individual Competition National Competition</b> <i>Second Prize for Engineering Mining Project</i>	<i>May. 2021</i>
<b>International Undergraduate Mathematical Modelling Competition</b> <i>Meritorious Winner</i>	<i>Feb. 2022</i>
<b>Northeastern University winter vacation social practice activities</b> <i>Outstanding individuals in social practice</i>	<i>Nov. 2021</i>

## SKILLS AND CERTIFICATIONS

**Languages:** English (fluent, CET6), Mandarin (native).  
**IT Skills:** MS Office, Python, MATLAB  
**Data analysis:** Pandas, NumPy, PyTorch  
**Interests:** Dance, Travel